Publication No.234

National Seminar

Draft Report

Vocationalization for All
Concept and Implementation

Draft Report

of

The National Seminar on

Work Experience

Dec. 9-11, 1991, Mitra Niketan, Trivandrum

SEAL

National Council of Educational Research and Training

Sri Aurobindo Marg, New Delhi-110016.

F O R E W O R D

The National Seminar on Work Experience was organised by the NCERT at Trivandrum in collaboration with Mitra Niketan, Trivandrum during December 9-11, 1991. The seminar was attended by high level officials/representatives from States and Union Territories, the concerned experts from various fields and the NCERT faculty who deliberated upon the significant issues and problems of implementation of work experience programme in schools after taking stock of the present position in the participating States.

This report includes papers on the general theme and sub-themes, status reports received from the States, proceedings of the Seminar and its recommendations. It is hoped that this will be a useful piece of literature for all those interested in work experience and its implementation. At this juncture when the Eighth Five Year Plan has just been launched and is being implemented, this critical appraisal of the programme would throw light on the future plan of action.

I am grateful to Prof. A.K. Mishra, Head, Department of Vocationalisation of Education and his colleagues for organising the seminar. Dr. A.P. Verma, who was the Programme Co-ordinator of the seminar has compiled and edited the manuscript of this report. I am also thankful to all those who participated in the seminar for their contribution.

Dr. K. Gopalan
Director, NCERT

New Delhi
July 1992

PREFACE

Department of Vocationalization of Education periodically reviews and makes critical appraisal of implementation of Work Experience programme in the country by conducting national seminar The present national seminar was organized in collaboration with Mitraniketan, Vellanad Trivandrum from Dec. 9-11, 1991.

The general theme of the seminar was : Vocationalization for All - Concept and Implementation. The sub-themes were (i) Charact Building and Inculcation of Values Through work Experience Activities, (ii) Teaching Procedures and Teacher Training and (iii) Work Experience and Community Participation. The seminar aimed to (i) assess the present status of the programme and share the experience amongst participating states/UTs, (ii) discuss major contemporary issues on the basis of lead papers and (iii) formulate new approaches for future.

The report of the national seminar on work experience has been organized in three parts.

The first part relates to the proceedings of the seminar and gives the recommendations of the seminar. All the papers - theme papers and other papers are presented in part II of the report. In part III of the report, the inaugural address and the reports from the States have been placed. There are two appendices giving the list of participants and the agenda of the seminar.

I believe that this document will serve as a useful reference material.

I am grateful to all the participants of the seminar for their rich contribution.

I place on record my appreciation for the untiring efforts in planning and conducting the seminar put in by Dr. A.P. Verma, Reader in Technology and Programme Coordinator of the National Seminar. I am thankful to Dr. Verma for compiling and editing the manuscript of the report and bringing it to the present form. I acknowledge the cooperation received from the staff of Mitraniketan. I also acknowledge the cooperation received from my colleagues, Dr. V.S. Gopalan, F.A., NCERT and his staff.

(Arun K. Mishra)
Dean (Academic), Professor & Head
Department of Vocationalization
of Education, N.C.E.R.T.
New Delhi-110016

17. States Reports from States

17.1 Andhra Pradesh
17.2 Jammu and Kashmir
17.3 Kerala
17.4 Madhya Pradesh
17.5 Maharashtra
17.6 West Bengal
17.7 Uttar Pradesh

Appendices

Appendices I- List of Participants

Appendices II-Agenda of the Seminar

Proceedings of the Seminar

Introduction

National Council of Educational Research and Training periodically organises National Seminar on Work Experience and Vocationalization of Education. The present National Seminar was organised by NCERT in collaboration with Mitraniketan, Vellanad, Trivandrum. It was considered appropriate to organise this programme in Mitraniketan which is in rural setting and which is deeply involved in work education and is conducting several innovative experiments in education and rural development. Thus, the experience of Mitraniketan was of direct relevant to the concept of work experience.

The general theme of the Seminar was: Vocationalization for all - concept and implementation. The title essentially implied inclusion of work and vocational elements in general education at all levels of school education. Particular attention was given to vocational experience. The objectives of the Seminar were (a) to review the progress of the work experience programme in the States and to share the experiences amongst the participating States/UTs and exchange ideas, (b) to discuss major contemporary issues on the basis of lead papers and (c) formulating new approaches for future.

Participants

The National Seminar was attended by twenty six participants representing twelve States. They included officers of the Boards of secondary education, Education Secretaries of sectors of Education and other officials of the Governments, Principals, Professors, Research Officers, Teachers, Teacher Educators, Experts from voluntary organizations, and academic staff from Regional Colleges of Education. In addition to the above, five faculty members of the Department of Vocationalization of Education of NCERT, also participated in the seminar. There were experts who were invited in individual capacity to the seminar to present lead papers on the sub-themes of the seminar and share their views and experiences. The list of participants is placed at Appendix-I. The Agenda of the Seminar is placed at Appendix-II.

Details of Sessions

Session-I

H.E. the Governor of Kerala, Shri B. Rachaiya was to inaugurate the National Seminar. However, it was learnt that H.E. Governor of Kerala was held up because of some 'bandh' in Trivandrum. Thus, opening session of the seminar began with a silent prayer. Shri A. Vishwanathan, Director, Mitranikaran welcomed the participants. He remarked that his association with NCERT was nearly two decades old. He pointed out that we have to develop a work culture, value system and develop self confidence and self respect in the students which

is the role of education. He pointed out, citing the example of Japan, that if we think we can achieve a lot, we can rise to the occasion and prove our worth. He said that the problems should be faced as challenges and difficulties should be overcome not some day but today.

Prof. A.K. Mishra, Dean (Academic) and Prof. and Head, Department of Vocationalization of Education, NCERT then welcomed the participants and explained that the NCERT organises such national seminars periodically. It was decided to hold this programme at Mitraniketan so that the participants could also visit various centres of Mitraniketan and observe the infrastructural facilities here. He explained that the theme here was 'Vocationalization for All'. He said that academic and practice learning should take place all along the educational ladder. He further stated that the last Review Committee under the chairmanship of Acharya Ramamurthy has used a "core vocational" for all students and has not favoured streaming at higher secondary stage of education. He felt that conceptually there was no problem at the elementary level. However, what we do not have is vocationalization for, all at the +2 level, and therefore, a module or a component of 'core vocational' for classes XI and XII may be thought of and designed for the academic stream students.

Then there was self introduction by each participant. Dr. A. Verma briefly narrated the background of the seminar. He explained that the general theme of the seminar was 'Vocationalization for All - Concept & Implementation' and the sub themes were viz., (1) Character Building and Inculcation of Values through Work Experience Activities, (2) Teaching Procedures and Teacher Training & (3) Work Experience and Community Participation. He acquainted the participants with the schedule of presentation of state reports & theme papers etc. This was followed by presentation of state reports by representatives of the states. All the state reports are placed in part III of the report. The status reports of the following states were presented:

- Andhra Pradesh
- Bihar
- Jammu and Kashmir
- Kerala
- Madhya Pradesh
- Maharashtra
- Manipur
- West Bengal

The Director of Education UP could not attend the seminar. However, the status report has been received from UP Govt. which is placed in part II of the report.

Session II

In this session, the paper 'Vocationalization for All - Background and Issues' by Arun K. Mishra, Dean (Academic) and Prof. and Head, DVE and Dr. A.P. Verma, Reader, DVE was presented and discussed. The paper is placed in part II of the report. There was a keen interest shown by the participants in the discussion that followed the presentation. In this paper, the idea of providing a core component of vocationalization for all has been presented and it has been argued that such a core cannot be vocation specific and would comprise of those skills which would cut across various vocations and prepare an individual for an occupational role in general immediately or after some training or after a much later stage. The concept of core component of vocationalization for all was explained in great detail by Prof. Mishra.

Session-III

This session was devoted to the sub theme on Character Building and Inculcation of Values through Work Experience Activities. Director, Mitraniketan, Shri K. Vishwanatham while giving his address said that Mitraniketan was a social laboratory to try out developments in education and training and tried to bring out the best in each child. He pointed out that if the soil is not congenial even the best seed will not germinate. Similarly, the community, the environment in school and home must be good and contribute to the development of the child. He said the concept of caring for 'your neighbour will not come by mere indoctrination. This does not become a part of

one's being unless students see this example around them and try to imbibe the spirit. He gave the example of Gurukula and told that U.K. have confessed they got the idea of residential school from India. He said that formal system be made informal and gave the example of Auroville Ashram in the heart of ashram surrounded by woods and in natural surroundings. He said the students were sent to get "Shiksha" which was essentially an exposure to the community.

Shri Vishwanathan said that a good coordination between head heart and hand was to be developed. Furthermore, welfare, education and development and the nature are intertwined. He said that we must prepare our children for tomorrow and day after. He said that work Experience/Vocational education was the heart and soul of NPE. He said that the confidence and competency which is a function of commitment and dedication should be developed in a person by doing.

Shri G. Guru recalled Gandhiji's concept of education through work, life and environment. He said that voluntary agency, NCERT and Government of India should form a team. He said that there should be exploratory activities at the lower primary stage, experimentation with tools, techniques and materials at the upper primary stage and work practice at the secondary stage.

Smt. Sambhavi Tiwari presented her paper on this sub theme, i.e. Character Building: Inculcation of Values through Work Experience activities - an observation in Jawahar Navodaya Vidyalaya. This paper is placed in part II of the report.

During the discussions, the participants showed keen interest. It was pointed out that students must (i) learn to keep things at their proper places and observe neatness, (ii) should do the job correctly and take pride in that, (iii) strive towards excellence, (iv) observe fairness in competition, (v) learn to take challenges, (vi) learn to evaluate and (vii) develop proper attitude towards failures.

Session-IV

Inaugural Session

H.E. Shri B. Rachaiya came to Mitraniketan on 10.12.91 to inaugurate the national seminar and work experience organized by NCERT, New Delhi and Mitraniketan, Vellanad from December 9-11, 1991. Prof. S. Menon welcomed the Governor of Kerala.

Dr. Arunk K. Mishra, Dean (Academic) and Prof. and Head, DVE, NCERT, New Delhi spoke about the programme. He said that programme of Mitraniketan, which was in rural location, was of direct relevance to concept of work experience. He explained that National Seminar of this type was a periodic activity of NCERT - once in every two years. He said that we have selected a theme - "Vocationalization for All" which is of considerable relevance to education today. He also stated that there are sub themes for different sessions. Nine states and experts invited in individual capacity are attending the seminar. He said that work experience/Vocational Education has stood the test of time. Gandhiji wanted work and education and life to be integrated. From Kothari Commission to Ramamurthy Committee, all feel that

work has a value in school system for total personality development of the child. He remarked that the implementation was not as successful as we would like it to be and this seminar is deliberating on this and will guide us to take further action.

Director of Kalamkshetra then welcomed the Governor and thanked him for coming to Kalamkshetra for this function. He said Kalamkshetra is an experiment and hoped that its roots will grow stronger. He said that the voluntary sector and Government may in partnership, develop programmes and contribute for education and training, jointly. He said that the presence of H.E. Shri Kochaiya is a great source of inspiration. He then invited him to deliver the inaugural address.

H.E. Governor of Kerala, Shri K. Kochaiya said that the Gandhiji's concept of education should be given top priority. He said objective should be to provide education for living. He advised that innovative strategies be tried to make education more efficient. He said that most of the present day problems could be solved by restructuring education and making it relevant to society. He said that he felt as if he was in Shantiniketan. The Governor then inaugurated the seminar with a feeling of genuine pride. A copy of the text of his speech is placed in part III of the report.

Shri V.S. Gupta then gave the felicitation address. He also referred to the role of teachers and said that they must explain that without producing we can not develop.

Finally, vote of thanks was proposed by Prof. Vedmani Manual.

Session-V

This session was chaired by Shri P.K. Chaudhary, Principal, Women's College of Education, Raipur, Prof. J.S. Grewal, presented his paper on "Trends in Procedures and Teacher Training in Work Experience". He discussed the changing concept of work experience and also dealt with the approaches and procedures in teaching of work experience and in this he discussed the integrated approach to the teaching of WE. Prof. Grewal also discussed the WE courses related to vocational subjects. He presented different methodologies relevent to the teaching of WE. He then highlighted the aspect of teacher training for WE, both in respect of pre-service and in-service programmes. The paper has been placed in part II of the report.

Other papers on this subject were presented by Mr. Mahadevan, Shri N.K. Chaudhari. These papers are also presented in part II of the report.

Shri C.K. Misra placed before the house the usefulness of WE programme. He stressed the need for a well designed teacher education programme. He suggested innovative programmes like simulation, skill development through games, videos etc.

Session-VI

In this session the participants acquainted themselves with various activities of Mitraniketan. The participants divided themselves into two groups and went to the various sections/departments of Mitraniketan. The participants had an opportunity to visit (i) Printing and publishing unit, (ii) Krishi Vigyan Kendra, Rural Technology Centre, various craft centres (tailoring, weaving, agarbathi etc.)

All the activities in Mitraniketan under various units have developed as training cum production centres. Mushroom culture, sericulture, garment making etc. are other sections tried out recently. Marketing outlets have also been provided.

Soil conservation, water conservation, agro forestry management have transformed the entire area around Mitraniketan.

Mitraniketan has several programmes involving community e.g. literacy programmes, upgradation of local cows and organising milk producers marketing society, etc.

The establishment of centre for Education, Research and Innovations in 1 7 is also significant. They are working on various research and development problems.

The various centres and extension units of Mitraniketan are established as a part of the holistic approach to total and integrated development to adopt technology science and education in an appropriate manner.

Session-VII (late night session 8.30 pm to 10.00 pm)

Since there was much to be discussed and time available was short it was unanimously agreed to hold the special session for which the facilities were readily provided by Nitraniketan.

Prof. [illegible] N.F. presented his paper on the sub theme of Teacher Education and Teacher Training. This paper is placed in part II of the report.

There was a very lively discussion on various aspects of the sub theme. Several questions were raised which were answered by the authors of the papers presented earlier.

Session-VIII

This session was to discuss 'Work Experience and Community Participation' (sub theme 3). Dr. S.K. Sinha, Director of Bihar was requested to be in the chair. Paper on Education, Work Experience and Community Participation was presented by Dr. S.S. Kalbag of Vigyan Ashram, Pune. The paper is presented in part II of the report. It said that it was to be thought of as an integral part of education. He discussed the concept of core skills from the outside world to be given to the student so that he can act in a variety of situation. From his experience, Dr. Kalbag said that he visualised a multi skilled approach - a necessary base on which specialization could be built. It was explained by him that education must give ability to visualise and this is helped by practical work. Dr. Kalbag suggested that certain projects could be

taken up through which the community benefits and in such cases the community shall be willing to share the cost. For this if the quality has to be maintained and the students have to practice skills under supervision of instructors. Such projects will build up assets, nurture the talent and give the confidence that even in rural situation they can make things that work at low cost. At fairly low cost, services can be provided. Dr. Kalbag also suggested training of out of school youth in multi skills and using them as Instructors for certain projects. In this context he mentioned: (1) Drinking water tanks and their supply lines, (2) Roofing for school, (3) Building dome houses (geodesic domes), (4) Folding ladders, (5) Poultry cages and (6) Poultry shed and many more.

Mrs. Prabhavati Rao, Principal, NVS, presented her thoughts on the sub theme. The paper is placed in part II of the report. She gave her rich experience of working with the community and how she helped to bring the concept of health and clean habits to rural/tribal children. Mrs. Rao explained the various sources from where she could get help. She said that she had involved children of classes VII to IX in several programmes for benefit of others. In Nellore, Mrs. Rao said, she propagated the concept of kitchen garden and supplied seeds to the community. In Karnataka, she said that with the help of the collector she could rehabilitate about one hundred 'watanjis' (devdasi).

A paper on Importance of waste materials in day to day life was presented by Ms. V. Vasundhara Devi of NCERT. She had also brought a number of exhibits, models of the waste materials which were displayed in the seminar room. This paper is placed in part II of the report.

Although Mrs. Rajni Kumar who has graciously accepted to participate in the seminar but could not attend due to health reasons sent her paper on 'Work Experience and Community Participation'. It was discussed in concerned group while framing the recommendations. This paper is placed in part II of the report.

Group Work

It was decided to divide the participants in four groups in order to consider the suggestions received from the house and also to draft the recommendations. First group considered the general theme, "Vocationalization for All - Concept and Implementation". The second group considered the sub theme I on Character Building and Inculcation of Values through Work Experience activities while the third group considered sub theme II on Teaching Procedures and Teacher Training. The fourth group considered the sub theme III on Work Experience and Community participation.

Session-IX

In this final session Dr. S.S. Kalbag was requested to be in the chair. The recommendations finalised during the group work were presented by the group leaders Dr. (Mrs.) Neeru Saluja,

presented the report of the first group. Mrs. Prabhavathy Rao presented the report of the group on Character Building and Inculcation of Values through Activities.

Prof. J.S. Grewal presented the report for the group on Teaching Practice and Teacher Training. The report of group III on WE and Community participation was presented by Mrs. Premalatha. Each recommendation was presented to the house, carefully deliberated upon and finally accepted unanimously after suitable ammendments.

In the closing session, some participants gave their impressions about the programme. In the end a vote of thanks was proposed by Dr. M.V. Verma, DVE, NCERT.

Recommendations

1. There must be some vocational education in the form of WE or any other form for all students till the end of the +2 stage.

2. A 'Core' vocational course, comprising of non-occupation specific and generic vocational skills, which cut across various vocational specializations, should be compulsory for all students, at the +2 stage, regardless of stream.

3. Such a course core vocational skills should be carefully designed, keeping in view the present situation and existing realities.

4. This course should be tried out as a pilot project, covering schools at both rural and urban areas in all the States/UTs of the country before wider implementation and should be properly evaluated before a large scale planned intervention.

5. About 15-20% time should be allocated to the study of this course.

6. The skills list and curriculum requirement of teachers and their training and other infrastructure should be worked out through a series of workshops.

7. The try-out of the courses must be preceded by the training of teachers to be involved in the creation of infrastructural facilities.

8. Building of character and inculcation of values in the students through work experience activities in the community depend upon teachers. Only teachers with vision perception will be able to create a congenial and stimulating environment for the students to build desirable character and inculcate values.

In the existing situation it would be necessary to develop the role perception in the teachers by training them in an institution having adequate infrastructure and stimulating environment for about 3 to 4 weeks.

9. The work of the teachers should be recognized and suitably rewarded.

10. In evaluating WE activities generally psychomotor skills are emphasised and personality traits are not taken into consideration. For inculcation of values and character building, some of the important personality traits relevant to the particular [illegible] should be given weightage. The overall objectives should be such that the students in their behaviour exhibit fairness in their dealings.

11. Case studies should be undertaken to bring out success stories.

12. New emerging areas should find a place in the teacher education curriculum, depending upon the needs of the society and availability of resources.

13. The ratio of theory and practice in 15-20% time recommended for WE programme should be 40:60.

14. In addition to the methods of demonstration and practice adopted at present, project method is suggested in view of its educational significance.

15. [illegible] lessons may be delivered during internship in teaching.

16. With [illegible] evaluation, continuous evaluation (both formative and summative) should be conducted. However, final evaluation may be done on seven point scale, which can also be converted into marks if need be.

17. WE should be offered as a compulsory subject at the primary and secondary stages.

18. Community Involvement should be a compulsory feature of all work study programmes.

19. Personality traits suitable for entrepreneurship and interfacing with community should be stressed.

20. The Pabal model of Dr. Kalbag has shown the feasibility of the WE as recommended by NCERT. This model should be extended to more schools.

Vocationalization for All - Background and Issues

By:

Arun K. Mishra
Dean (Academic) and Prof. and Head
and
Dr. A.P. Verma
Reader
Department of Vocationalization
of Education,
National Council of Educational
Research and Training,
Sri Aurobindo Marg
New Delhi-110016

A major concern of all the educationists, thinkers and philosophers has been to provide that education which will lead to a total personality development of the child, inculcate the dignity of labour, relate hand with head and heart, provide certain life oriented skills to the student, make the student more employable and trainable on one hand and avoid mad rush to the universities on the other. In order to achieve this an alternative track of education at the +2 level in the form of vocational education has been introduced besides the academic stream. The focus, therefore, has been to identify the job potentialities through district vocational surveys, select vocational courses and institutes, develop competency based curricula, develop instructional materials, and other aspects such as teacher factors, student factors and infrastructural facilities.

Presently, nearly three lakh students are enrolled in the higher secondary vocational courses in different parts of the country. About one hundred fifty vocational courses have been introduced in more than five thousand higher secondary institutes in twenty one states and union territories. An elaborate management system is gradually taking shape but the teacher preparation through pre and in-service training programmes leaves much to be desired.

As a matter of principle the course selection has to be done on the basis of district vocational surveys but the progress so far has been satisfactory in only a few states.

The labour market for vocational education graduates as well as the employers' expectation for entry level positions have not been adequately addressed to. More occupation specific training demand greater link with the local employers and skill development is not always the sufficient condition for employability. Entrepreneurial development is an important component of the total vocational curriculum and the area potentialities would suggest those occupational profiles in which entrepreneurial opportunities lie. The model per se is collaborative, strongly dependent on industry/employment sector for practical training but in most situations education - industry linkages have remained unexplored and rather poorly defined. Opportunities for on-the-job training for vocational students have been identified as a major weakness in curriculum implementation.

The implementation of vocational education programme in the general school system places a variety of demands such as providing infrastructural facilities, building of laboratories and workshed, instructional materials, school-industry linkages, providing teach and arranging for field visits and others which require a lot of painstaking, administrative effort, due to this there is considerable apath, in the system to the concept and practice of vocationalizati

A committee was set up under the chairmanship of Acharya Ramamurthy for review of NPE 1986. The committee deliberated extensively on the work and education relationships and the constitutional right to work. While the constitution can provide the political right to work and the economy has to create opportunities for work and employment, it is for the educational system to empower the people to work by providing opportunities to develop capabilities to work with in the socio-economic context and to inculcate an attitude for appreciation of work for its own sake. In view of the committee's core component of vocationalization has to be a part of the curriculum for all. This is in view of the fact that a large section of the students particularly in the rural sector and among deprived urban communities, vocationalization at +2 stage will mean no vocationalization in effect as many drop out and do not reach the +2 stage at all. The intention is that all including the most academically gifted should be involved in a basic minimum of vocational or pre-vocational courses at the secondary stage as a part

of a process of holistic developmental education. Furthermore, in the case of those who complete class VIII and do not go into the secondary stage of formal education, facilities should be provided for acquisition of vocational skills through other means (non-formal - modular approach).

Although the contents of the core component of vocationalization for all have not been spelled but by the committee it can be logically argued that such a core cannot be vocation specific because all students would not follow any specific vocation and many may not go for an occupational life immediately after secondary or higher secondary education. So the core can be interpreted to comprise those skills which would cut across various vocations and prepare an individual for an occupational role in general, immediately or after some more training or after a much later stage.

While considering the job oriented courses at the +2 stage, it will be pertinent to consider the experiences and studies in other countries. Tracer studies conducted in USA showed that those trained for a particular vocation do not stick to that vocation and change over to other areas. This points out to the need to prepare students who have certain core skills and are more trainable.

The rapidly changing technologies provide another set of considerations for a generic vocational preparation. Robotics, automation, expert systems, artificial intelligence communications explosion,

large scale computer application, synergetic management. Besides such advancements have not frozen in time and are dynamic in nature have placed special demands for skill requirements. In such a highly technology oriented world one could not predict with any degree of accuracy as to what the skill requirement would be after, say, ten years or so. It is also points out to the direction where a package of core skills be given to all students in order to make them more trainable and consequently more employable, in diverse situations.

There are a number of well documented studies on the subject of employers expectations from educational sectors. In New York, a survey conducted by Labour Market Information Network during 1978-81 highlighted that the employers preferred on electrical or electronic core over a number of narrow applications such as Advanced Business Machines, Interconnect telephones and Major Appliances Repair. It was felt that with such a core, a low level departure could lead to such occupations as typewriter repairer or computer maintainer. A Japanese survey indicated that the school cannot be considered as an appropriate provider of any thing looking like training. In Britain the employers strongly recommended vocational elements within the school curriculum but not in the form of specific vocational course for entry into particular occupations but a general vocational approach across the whole of school life.

The industry in Britain prefers to manage the provision of training itself and sees the job of school as providing a foundation on which further training can be based.

In developing countries the information on employers' opinion is not well documented. Yet the available information allows no other conclusion than those from the developed countries which point towards the role of schools in producing trainable rather than trained manpower for specific occupations.

Curricular Framework

In the modern world based on science and technology where rapid developments change the skill demands for emerging areas of technology, no educational curriculum should be designed without taking into account the above into consideration. In this context it is pertinent to include occupation free components or non occupation specific components which have a bearing on easy adaptation to changes in technology and the changing demands of the work place. This can be achieved by integrating general vocational preparation at all stages of education.

Till the beginning of lower secondary stage, work may play an important role as a medium for education along with other components such as Language, Mathematics, Science, Social Studies, Health and Physical Education and Art Education. Work Experience should be relevant to the emerging needs. Manipulative skills should be given

preference. Attachment to worksites for the development of skills should be considered. In order to bring school closer to community the programme should be extended through community services. Work experience component should constitute 15-20% of time in curriculum.

At the secondary/post compulsory stage there should be a distinct subject field for vocational/technological orientation which leads to the development of certain common vocational skills such as key-boarding, data manipulation, problem solving, decision making, understanding information and other technological system, knowledge of economics of work, applied mathematics and science, career planning and other transferable skills useful for any work or employment situation. Such a course may even be compulsory for all secondary grade students. To exemplify these ideas, namely the development of 'core' or 'broad based' general vocational competencies, specimen competency list is given in Annex.I. An example of how such competency has been developed in USA is shown in Annex.-II. This would provide the knowledge base for non-occupation specific vocational education on which one could build further academic base for higher level occupations (through university level education) or an immediate vocational specialization through enterprize based training, apprenticeship or more specialized vocational training institutions. In the present curricular structure, the work experience/SUPW component could be thoroughly revamped and about 15-20 per cent time given to this course.

In this form of vocationalization does not involve precise pre-employment training, there would be no need for assessing the manpower needs or establishing linkages with the job market for post-graduation absorption or for pre-graduation support for instruction as in case of the streaming model.

It is desired to conclude by reinforcing some of the ideas in support of this option, the strength of which lies in being operable alone or in conjunction with the present stream of vocational courses The changes in technology, to a greater or lesser extent, are affecting all areas of work and employment. As a consequence a precise forecasting of educational and training requirements becomes difficult. The changing technological scene demands adaptability, continuous learning and acquiring skills throughout ones life. If trends in developed countries are any indicators, the jobs requiring unskilled and semiskilled workforce would gradually shrink, the demand for higher levels of education would increase, employment in the service sector would further increase, there would be a shift from occupational to skill groupings, i.e., the skills would cut across the occupational groups, older jobs would gradually disappear and newer jobs would emerge faster. The wider applications of microelectronics would cause fewer manual jobs to be available and would necessitate more of such skills as critical thinking and greater amenability to team work. It is also likely that more jobs would be available in smaller enterprizes rather than large corporate bodies.

This would further demand higher levels of inter-personal, social and technical skills together with creativity, initiative and responsibility. It is, therefore, a major concern to develop vocational education in the context of high unemployment, low wage employment opportunities and uncertain future employment prospects. It is important to make initial training so broad based as to allow future trainability in enterprize and enhance adaptability of the youth to the uncertain job market.

Annexure-I

Example of 'core' general vocational competencies:

- Positive attitude to work
- Problem solving skills
- Learning to learn
- Cooperation
- Initiative
- Information Accessing
- Communication skills

Example of 'Broad based' skills:

- Computer Literacy and key board skills
- Drawing and graphics
- Local crafts
- Wood work and metal work
- Electricity
- Local Industry/Agriculture
- Community awareness
- [illegible]
- Facilitative/Adapting developed technologies to appropriate local labour/mechanical mixes
- Service sector skills (Business/secretarial)

Annexure-II

An example of Core Competencies for U.S.A.

Core competencies for every high school graduate of a VE programme in USA (State of New York).

1. Personal Development
   - Personal Skills
   - Self Concept
   - Personal Appearance
   - Health
   - Use of Leisure Time
   - Adaptability
   - Decision making
   - Problem Solving
   - Interpersonal relations
   - Social skills
   - Participation and interaction with groups and organizations
   - Leadership
   - Career awareness/exploration
   - Goal setting/Career and educational plan
   - Job application
   - Job retention including work habits
   - Job progression and change
   - Employer and Employee relations

2. Social systems
   - Economic concepts
   - Political literacy
   - Legal literacy

3. Information skills
   Verbal communication
   Non verbal communication
   Listening communication
   Written communication
   Computation communication
   Information retrieval
   Dictating communication skills
   Keyboarding skills
   Use of Information Systems

4. Resource Management
   Money
   Time Natural Resource
   Human Resource
   Consumer skills

5. Technology
   - Concepts of Technology
   - Developing Technology
   - Application of current and emerging technologies
   - Use of basic tool
   - Work related health and safety
   - Personal safety.

Character Building and Inculcation of Values through Work Experience Activities - An Observation in Jawahar Navodaya Vidyalayas

By:

Smt. Prabhavathy Rao
Principal
J.N.V.
A.P.

Introduction

A study of the value oriented education is conceived as a global view of the educational phenomena in bringing fresh insights into many aspects of the educational process. It is seen that this process covers areas of learning which go beyond the purely intellectual sphere into all dimensions of being and encompasses all dimensions of learning. For the individual seeking to develop attitudes and capacities which will enable him both to cope successfully with the challenges confronting him throughout his life and to participate constructively in the larger process of development. These dimensions attained greater importance in the role of learning in Navodayas.

The very objective of Navodayas is novel, the teaching and learning is activity based. It sustains routine mental laziness and lack of imagination. The special dimension that covers the importation of knowledge for developing personality by involving the body, the emotions, and the aesthetic faculties. Jawahar

Navodaya's mission - raison d'etre is not to transmit ready made knowledge but to enable each person to develop his potential and to lay hold of all the dimensions of his being. Thus excathedral lectures, set tasks and conventional lessons have gradually been replaced by group work, group discussion and the exchange of experience. Most significantly the teacher is encouraging the child to seek question and utilise personal experience and documentation.

School Complex

The school is an index of values. A value oriented physical environment could have the following characteristics:

1. Cleanliness

This means cleanliness of the entire school complex, the grounds, buildings, floors, classrooms furniture, books, the childrens' persons clothes, the staff room, kitchen and dining hall.

2. Orderliness

Orderliness or organisation of materials, systematic arrangement of things/books/apparatus in classrooms, library, laboratory office, sports room, store room etc.

3. A Feeling of Beauty

The classroom and school environment must inculcate a sense of appreciation for beauty. Contribution from the children is essential in order to create this value.

4. Respect for Plants and Animals

Children love the plants and animals and will have a chance to [illegible] them.

The Teacher and The Taught

Child is the pivot of education - Navodayas have child centred education. In the work experience classrooms the teacher makes observations of the messages sent to the child.

The school puts up magnificient show, dance, displays on the school day. It is a feast for the eyes. What we observe is what has it done for the child's life, and to the development of his body in a practical way.

Intended Messages	Hidden Messages
Physical exercises is important in life.	1. Physical exercise has no meaningful relationship with life. 2. It is only a show 3. Prestige is more important than real improvement of health.

The children present different activities to exhibit their talents.

The Intended Message	The Hidden Message
1. All the children must develop their talent	1. We are in show business
2. Team spirit and cooperation	2. The grand shows mean that the name and prestige of the institution more important than mine. 3. I am a thing to be used for show. I am an insignificant part at a whole.

Thus Navodaya makes an observation of hidden messages and changes its strategies to tailor the messages to fit in the planning. The schools are concerned and pervaded by Gandhian philosophy of self reliance, mutual helpfulness, co-operative action, corporate living and welfare of all.

The Creative Child

Navodayas are playing a vital role in identifying the creative child. The precious lot to contribute towards the progress of mankind. The parameters set to identify the creative child - The creative child - tries to be original in his thinking action or behaviour likes questionning, disagreeing, arguing, deffering, sees new relations between ideas. Tries to give as many answers as possible to broaden questions put by the teacher.

Creative Child and the Values

The creative child through his self creation he outgrows his immediate environment and escapes a predetermined destiny - his existence becomes a historical continuum that has meaning and purpose. Thereby we develop thinkers, workers, the artists talent in every child. This creativity is observed in all his activities, washing, cleaning, dressing, arranging things, beautification of campus, gardening, art and other work experience activities. These activities help not only to assimilate knowledge but to take possession of himself and of that part of universe within his reach. An adequate exposure is given to the child to experience the work.

Nobody becomes a skilled equestrian by watching horse races, nor a pianist by going to concerts. Being a sportsman, musician or technician requires qualifications which express a mode of being, characterised by the acquisition of a variety of abilities and competenci[illegible] In acquiring the abilities every individual obeys in his behaviour a system of values. It is he himself who is the principal agent of his development if only because outside aid can only be temporary and intermittent. For the largest part of his learning, he is reduced to his own resources. Nobody can think fee or grow for him.

Communication, Learning Situation

In a work situation a creative child is given a botique printing in his work experience class. He expells himself from the authoritarian and dogmatism of the teacher. Between the dogmatic teacher and the creative child there exists a dialectic movement that cannot be interrupted which creates serious damage to both. Any kind of dogmatism has become as kickegaard says a Fatal malady. The individuality is rooted out. Thus the creative child in a work experience class becomes either a passive listener or tries to disturb the class by diverting the attention of the teacher. The teacher changes his strategy by working along with the child.

Work World

In Navodhya's there are many variegated activities under work experience like, candle making, carpentry, soap sculpture, making

plaster cards, chalk piece, carpet weaving, making decorative articles, gardening, which demand an amalgamation of skills, here the Navodayas do not confine comfortably for traditional thinking but child's diverse potentialities are programmed. This fulfillment results from a synthesis between what is genertically programmed and the entirely of activities this child undertakes. Etunave wolf an eminent biologist said "Man is Programmed to Learn". The child reflects his potentialities through his work. It is what he is. The teacher acts only as a catalyst to bring out his potentialities. There are number of activities identified for the routine life - washing mending ironing arranging, book keeping etc.

Programming Values

The observations recorded in the process of work in the workshop reveals the following. The child is supplied with, a target, the source material, the implements to design a product. The child manipulates the materials. The child painter or the child engineer translates and nourish their poetic inspiration through the manipulation of materials - Canvas, Paint, Soap, Plaster, Lime, with the help of tools, brush chisel, or hammer. In this context the role of the tool and the importance of the way it is handled seems clear for the child. They become more evident in industrial production.

In Navodayas the vocational courses are introduced at +2. It is a need based course. It prepares citizens to fit in an organisational society with heirarchical structures, arranged to combine

the work of different specialists into a system set up to obtain objectives, independent of the individual aims of its members. Hence the children are made inquisitive, critical and capable of understanding possible choices and their implications. The pedagogy cares more for progress than for growth. The vocational education planned is to make the child perfect but not productive. The Navodaya have taken care to include creative component to the work experience. As Noveas said the child is motivated to fall in love with vocation. It can be delicious or it can be a torment of frustration. The vocational education in Navodayas is to imbibe social and moral values such as production is for peaceful co-existence and happiness for the man, but not for destruction. This vocational education makes the child inquisitive, capable of understanding possible choices and their implications.

The Work Experience for a Corporal Man

The children are trained in drama, dance, singing, sports, and other rhythmic movements of the body. The expression corporalman is undoubtedly a tautological one and is intended to remind us that man with his intellectual, volitional emotional and other faculties is a corporal reality.

This realisation helps us to control defective perception insufficient control over their body and difficulties in keeping their balances while standing. The observations have gone deep to know the communication of a child's body with the world. The

peripheral appearences emotion, excitement, anxiety, destruction and other bodily drives are treated. The observations reflected an ego world relation and the self relation of the ego. The corporal person is the spatio temporal dimension of the ego. The main inspiration of pedagogical schools of liberation of Neill, Freire, Holt etc., evaded by brilliant educationists is incorporated in the system of observation. The hilarous activities of the children are modernized by influencing the cortex of the child which regulates the activity; the neurons are systemised to obey and to confirm; the brain for plan and programme (Working Brain Luria 1973).

Thereby the motor activity of the child is regularised by rhythmic work experience activities. The child begins the process of self discovery, self reflection, self understanding and self regulation. There is a correlation between physical sports activity and retardation of aggression. The correlation between amotion and singing and dancing. The teacher tries to regulate the qualitative libidinal relationship of a child with other persons. These corporal activities are schematised with reference to time span life. As Gagigal points out the substantial vaccum between the corporal development and the development of personality is filled pedagogically to make the body a domain of 'being and not of having'.

Work Experience Expressions through Human Creativity

Art, drawing, painting, soap sculptures various forms of writing constitute the human creativity of work experience activities. These encompasses the intellect emotion and the imagination, when the child draws, what he has learned may be or may not be useful for him in the future but he is performing an action that is fully justified for himself the child fully and authentically. The child fully enjoys the way he had lived through his drawing, expressed himself, achieved his aim, overcome or tried to overcome limitations, lived, suffered and enjoyed. The child is helped by the teacher to express his new desires for self expression.

To assess the values of work experience in human creativity art plays a vital role since it is related to man. It has embellished production, personalised communication, intensified human relationships. Art is concerned about the cultural aspects of the human education, growth of spiritual life, mans emotions, his imagination, his attitude towards values. Since the art expressions are neglected in schools as Leopold Flam says in his 'L' homme et la conscience tragique" there are blank patches or vague terrains in the present day education. The visual arts linked with production and manual activities were stable values. They invited contemplation leading to peace of mind (The Dionysian and Appolonian arts).

The Navodayas have not treated art as a ritual. Attention is paid to this new idea 'open beauty' which expects not only knowledge and sensibility, but also some activity even an effort. Encounters

with new artistic works demand a constant reappraisal of value judgement. The value the child received is he will say "I don't like that", but never". This is bad". He will become receptive and accommodating towards the works of others. As Herbert Reads says that if too much confidence is placed in intellectual power while the powers of imagination are neglected then bad will triumph.

As the child starts drawing he acquires the following values. It

- helps to 'see whole' to apprehend facts and phenomenon.
- inspires the faculty of expression through symbols and the ability to interpret these symbols.
- permits dialogue and communication. It give his mind 'a museum of imagination'.
- develops sensibility to things and to life.
- develops ability to adopt rapidly to new situations.
- develops orginality characterising divergent thinking.
- develops a capacity for abstraction which enables a person to proceed from a general impression of things to the determination of details.
- assembles several elements to form a new whole in order to give them a new meaning.
- gives sensibility and self-awareness.

The work experience identified two fold end-self identification together with the promotion of easy sincere communicability with others. The work related to his instincts and life within the institutions of school, family, develops morality.

In this situations of work world the teacher is expected to be an example rather than a model. Then values can be taught through work to abase anxiety, insecurity, boredom and violence. To attain the state of benevolence Confuscious and Jessus have expressed "YOU MUST BE BORN ANEW".

Teaching Procedures and Teacher Training in Work Experience

By:

Dr. J.S. Grewal
Regional College of Education
Bhopal-462013

1. Changing Concept of Work Experience

The concept of Work Experience (WE) as a school subject has undergone several changes over the years. In Basic Education System teaching-learning was to centre around craft at lower levels and some kind of inter-relationship between the subjects was to be attempted while teaching rather than teaching these subjects in an isolated manner. Alongwith the study of crafts, technical stream was introduced as one of the diversified courses at the higher secondary stage, as recommended by the Secondary Education Commission in 1953. But not many schools could introduce a variety of diversified subjects as was expected under this system. The Education Commission (1964-66) was the first to give us the concept of 'work experience' in place of the study of crafts and suggested a list of science and technology based work-experience activities from lower primary to higher secondary stage. We waited for nearly 10 years when a document titled "The Curriculum for the Ten Year School" (NCERT, 1976) was brought out. This curriculum framework suggested a certain time allocation for the WE subject ranging from 15% (classes I-II); 10% (classes III-V); 5% (classes VI-VIII);

and again 5% for the classes IX-X. The 10-year curriculum was itself reviewed soon after its implementation in 1978 by the Ishwarbai Patel Committee. This committee viewed WE as an activity of Socially Useful Productive work (SUPW). The NCERT brought out another document in 1976 titled "Higher Secondary Education and Its Vocationalization" which was also reviewed by the Adiseshaiah Committee in 1978 and the report published under "Learning to Do - Towards a Learning and working Society". This committee recommended 15% of time allocation to SUPW even for the students of vocational stream. The NPE-1986 suggested streaming of courses of +2 stage into academic and vocational courses. Vocational education is supposed to proceed in a continuum, starting with work experience (at primary and upper primary stages), pre-vocational work experience (at secondary) and finally ending into vocational stream at the senior secondary stage.

One of the objectives of the WE/SUPW components in the secondar, school curriculum is to introduce this area as "pre-vocational stage" and to initiate the students to the world of work. The NPE-1986 has suggested the retention of original nomenclature of 'work experience' in place of SUPW and has accorded it a significant place in school education as is evident from the "National Curriculum for Elementary and Secondary Education - A Framework" (Revised version, 1988). The curriculum framework is based on the policy statement contained in NPE-1986 where WE be given 20% of the total duration of school hours at the primary stage and a

'Mini Tool Kit' has been developed recently for its teaching under the 'Operation Blackboard' (NCERT, 1991). However, a review of the NPE-1986, done in 1990 by Acharya Ramamurthi Committee took the position that there should not be any separate vocational courses at +2 stage. Vocational education may be incorporated/introduced by suitably integrating WE activities at the various stages of school education. Despite the several weaknesses/problems of implementation and changes suggested in the policy, WE continues as a school subject. It is in this context that we have to revitalize the teaching of WE by the teachers. For this they are to be adequately equipped with teaching and evaluation procedures.

2. Teaching of Work Experience: Approaches and Procedures

In the post-graduate Basic Training Colleges/CTIs work experience was taught as craft subject and was entrusted to the craft teachers instructors. Later with the introduction of "10+2" curriculum in 1976, WE has become one such curricular area where every teacher is expected to participate. However, it was also suggested that services of personnel trained in specific trades, particularly at the secondary stage, will also be useful for conducting production-oriented activities. But teachers might think of organising WE activities relating to their subject. These activities also help students in 'learning by doing'. The craft teachers, who were recruited after the introduction of diversified courses, were required to teach WE with newer orientation. They were trained

through various programmes organised by the state, regional and national level agencies. It was also felt that since all teachers will be required to handle WE courses, they should follow "subject-centred" approach by bringing the theory of the concerned subjects into practice (e.g., science, commerce streams). Let us have an idea of this approach further.

2.1 Integrated Approach in the Teaching of WE

Bhandarkar (1978), on the basis of his interviews with science teachers from lower primary to lower secondary he found that they had to cover large units of syllabi at every stage. Therefore, they could conduct work experience activities by 'technical means' like handling of basic materials (plastic, pliable, liquid etc.) and basic tools (for measuring, marking, holding, cutting, bending, joining). Advantage of this approach is that these activities provide an insight into the understanding of science and its application. Further, improvisation of apparatus, teaching and learning aids is also made possible. For example, Hoshangabad Science Teaching Project (HSTP), started during the seventies, has made an attempt in this direction by breaking the isolation that "hypotheses are not taught but tests, laws are not learnt but discovered". The HSTP, therefore, follows activity-based approach which is also stressed in WE.

2.2 WE Courses Related to Vocational Subjects

The CBSE, while developing courses of studies in the context of NPE-1986, suggested two types of WE activities, one relating to skill

development and the other relating to community services inbuilt flexibilities. The WE courses, that were suggested in the light of this policy, centred around agriculture, home science, technology, fine arts, commerce and other vocational areas. A school chooses the WE courses according to the availability of infrastructure. For example, the Demonstration Multipurpose School (DMS), attached to the Bhopal Regional College of Education, offers WE courses like electricity, fine arts, music, gardening, wood/metal work and home science. In this particular setting special teachers are available. But such is not the case with the majority of other secondary schools who follow the curriculum of the State Boards of Secondary Education. To make another example, a school affiliated to the M.P. Board offers courses in gardening, first aid, motor mechanic, commercial art and music (Guitar). Instructional work is mostly done by the subject teachers and also assessment is done internally.

2.3 Teaching Procedures

Perusal of literature indicates that like any other activity-based subject, WE can be taught as a practical/workshop subject through the sequence of demonstration followed by practice. The following methods are perhaps relevant for teaching WE:

(i) Lecture-cum-Talk Method: A lecture or brief talk is given before the demonstration where participation of the learners is not possible because of the large size of the class.

The information to be put over can be sorted out before hand. Participation in the form of questions may be possible when sufficient information is passed on to the students.

(ii) Demonstration: It is one of the important methods which goes through the stages of stimulation, assimilation and application at the end. Demonstration method is followed where skills are to be developed through independent work on a job marked by repetition. Use of AV aids, particularly computer, can be made for demonstrating a skill.

(iii) Exercise/Performance/Practice: This approach is essential for the development of skills. Microteaching approach - a teacher training technique - may be perhaps relevant in this regard. Students can do the various exercises in their own time.

(iv) Project Method: It is most suited to our conditions where facilities are limited and group work is assigned. A number of students can be given a project, where they can apply the theoretical knowledge. Project reports can be written by the students in their own original style by using the same set of observation/data. In the DIETs, the project approach, rather than assigning individual tasks, may be tried out.

(v) Evaluation: Assessment of the JE can be done better by awarding grades, preferably on a 5 or 7 point scale. The

development and the other relating to community services inbuilt flexibilities. The WE courses, that were suggested in the light of this policy, centred around agriculture, home science, technology, fine arts, commerce and other vocational areas. A school chooses the WE courses according to the availability of infrastructure. For example, the Demonstration Multipurpose School (DMS), attached to the Bhopal Regional College of Education, offers WE courses like electricity, fine arts, music, gardening, wood/metal work and home science. In this particular setting special teachers are available. But such is not the case with the majority of other secondary schools who follow the curriculum of the State Boards of Secondary Education. To make another example, a school affiliated to the M.P. Board offers courses in gardening, first aid, motor mechanic, commercial art and music (Guitar). Instructional work is mostly done by the subject teachers and also assessment is done internally.

2.3 Teaching Procedures

Perusal of literature indicates that like any other activity-based subject, WE can be taught as a practical/workshop subject through the sequence of demonstration followed by practice. The following methods are perhaps relevant for teaching WE:

(i) Lecture-cum-Talk Method: A lecture or brief talk is given before the demonstration where participation of the learners is not possible because of the large size of the class.

grades,can be converted into marks, if need be. It is also suggested that both formative and summative evaluation procedures are relevant for WE. Criterion referenced testing may be used where mastery of skills (e.g., typewriting, stenography) is expected.

3. Teacher Training for Work Experience

Several approaches have been thought about and tried since 1976 both in the pre-service and inservice programmes.

(a) Pre-service Training Activities

3.1 WE as Second Teaching Subject

The RCE, Bhopal introduced in 1976, on experimental basis, WE as a second teaching subject related to physical and biological science subjects in its One Year B.Ed. (Science) Course. This course got off to a good start, but the employers wanted the second academic subject of teaching by the teachers for employment purposes. Now the NCTE-1990 framework has suggested WE as 'stage relevant' specialization for the elementary teacher education institutions and as additional specialization for the B.Ed. (One Year) courses conducted by [illegible] Colleges of Education. Perhaps WE subject developed by the RCE, Bhopal in 1976 can be introduced as additional special paper in the B.Ed. course.

3.2 WE in the Subject Related Areas

The Regional College of Education, Bhopal offers training in WE to the trainees of One-Year B.Ed. courses (science, language, commerce, elementary education), depending upon their areas of study.

- For Science Group: Metal/wood work, electronics, photography and gardening.
- For Commerce Group: Stenography and Typewriting, Operation of PCs etc.
- For Language Group: Book craft, Commercial Art, Typewriting etc.
- For Elementary Education: Metal/Wood work, Book Binding, Operation of PCs. Activities suggested in the Performance Package of OB Handbook published by the NCERT (1991) may be consulted by the teacher educators. Linkage of WE activities with other subjects is important aspect is important aspect of post-internship period The DIETs/Colleges of education may organise subject-wise exhibitions of the teaching aids prepared and used by the trainees. We have successfully tried this practice by holding exhibitions of teaching aids of science, commerce, geography and subjects taught at primary stage. Later these materials are distributed to the schools.

3.3 Work Experience in Four-Year Integrated Courses

These courses provide unique opportunity to the trainees to acquire WE skills while undergoing science and language courses. For sometime, we at Bhopal reduced the duration of teaching WE from two to one year which affected the quality of skills to be acquired. Now we are again increasing the duration by spreading the WE courses over a period of 2-3 years. We have also replaced WE areas like Book Craft and Paper Mache with need based courses like computer training.

3.4 WE as Stage Relevant/Additional Specialization

As stated earlier, the NCTE (1990) curriculum framework has provided for a very realistic way of training the teachers in WE area. WE, in this approach document, has been considered as relevant to the needs of elementary education. Therefore, WE and Art Education, which are relevant to the needs of primary schools, are suggested with time allocation of 5%. At the secondary stage a teacher trainee can offer WE as an elective subject with 10% time allocation.

(b) Inservice Training Activities

3.5 Training Workshops

A series of programmes have been organised at the Regional and State levels by the RCEs/SCERTs and other agencies in specific areas, both for the teachers and teacher educators in commerce, agriculture and technology. Later, with the establishment of ET cells in the States/RCEs, areas like photography, radio scripts and computer education have come up.

3.6 Induction Programme for DIET Staff

The Department of Teacher Education of NCERT, in collaboration with the RCE/SCERT staff, has developed some training modules in WE for the training of DIET staff. These modules will be used for the induction of DIET staff. Other areas where the modular approach has been followed in CMDE and ET.

3.7 Need-based Courses

At Khiroda, in Maharashtra State the College of Education organised inservice training for teachers on demand by the former trainees.

4. Some Problems

The following problems are identified:

(i) Suitable evaluation procedures for WE are still to be devised. Grading System in place of marking system is suggested.

(ii) There is a lack of use of local specific materials, both in the schools and training institutions. WE is sometimes not related to the local conditions. For example, Burhanp in M.P. has a large number of handlooms, but weaving is no an area of WE in its schools and teacher-training institutions.

(iii) Inservice training in WE/Vocationalization is not serving the desired purpose because of the change of staff due to postings. This leads to wastage. Some positive steps ar now being taken in this regard by following non-transfer policy in case of OB school teachers.

(iv) In some cases, there is over-training as well. Some teacher educators are deputed for training in many areas

(v) There is lack of research/survey studies pertaining to teacher training and organisational structure of WE instruction in schools.

(vi) Involvement of local craftsmen and community is not to the desired extent.

It is our experience that the courses in WE should be designed/changed according to the needs of learners. Now courses in computers, educational technology, electronics and steno-typing are the most preferred ones. Teacher education institutions should revise and update these courses from time to time. For example, even child care and providing nutrition to the children at a nearby nursery school can be treated as an activity area of WE. The assessment of WE skills may be done on continuous basis, both internally and externally.

References

1. Bhandarkar, A.G., "Work Experience Programmes, Their Place in the Vocationalization of +2 stage and Role of Science Teachers. The Science Teacher No.1, vol. 22, 1979.

2. Buch, M.B., Patel, P.A., Towards work Centred Education Ahmedabad, Gujarat Vidyapeeth, 1979.

3. ILO "Guide to Teaching and Training Methods" Methods for Management Development. Jeneva: ILO, 1972.

4. Thimmaiah, G. et al., Vocational Education - Problems and Prospects. Bombay: Himalaya Publishing House, 1982.

5. Ministry of Education: Learning to Do: Towards a Learning and working Society, New Delhi, Ministry of Education and Social Welfare, 1978.

6. NCERT: National Curriculum for Elementary and Secondary Education - A Framework, New Delhi: NCERT, 1988.

7. NCERT: Training Material Vol. II, Performance Package, PMOST:New Delhi: NCERT, 1991.

8. NCERT: The Curriculum for the Ten-Year School - Framework, New Delhi: NCERT, 1975.

9. NCERT: Work Experience in School Education: Guidance, New Delhi: NCERT, 1987.

10. NCTE: NCTE Bulletin. Vol. 1, No.1, June 1989.

Teaching Procedure and Teacher Training of Work Experience Programme

By:

Mr. K.K. Mahadevan, General Secretary
Kerala Work Experience
Teachers Association,
Ernakulam-682315

The new concept of work experience was introduced in our schools as a result of implementation of Kothari Commission Report 1968. Previously the craft education was introduced after the failure of basic education schools. The success of educational enterprise depends upon the joint efforts of Government, teachers, parents and students. There are two ways for implementing the Work Experience Programme, either by taking the workshops to the schools or by taking the schools to the workshops. We have to adopt both the ways for effective implementation, generally there shall be a workshop in each school for teaching various subjects under Work Experience Programme. For better training we have to take the students to various workshops or production centre of any activitie

The procedure of teaching work experience differs from other subjects since WE viewed as purposive and meaningful mannual work organised as integral part of the teaching process and resulting in either goods or services useful to the community. The valuation creteria also differs from other subjects.

One or two teachers specialized in locally suitable activity under WE programme are to be appointed in all schools as the pivot of implementation of the scheme in schools.

The availability of educational facilities, raw materials, local resources, transporting facilities and marketability of finished goods etc. are to be considered for selecting the activity. All the teachers in the school are to be given orientation and in-service training for various activities and are to be put to use for teaching work experience, without causing overwork to them. Posting of additional teachers in schools counting the periods of work experience is the only remedy to reduce the work load of trained teachers. The special teachers appointed will be in charge of the workshops, equipments, raw materials and the products.

There shall be a school work experience committee in each school under the leadership of the head of the institution, the teacher in charge of the workshop as convenient and all the teachers as members. The committee have to be meet at the beginning of each academic year to chalk out yearly plan and monthly plan of work experience activities of the schools. Then the committee has to meet in the beginning of each month to scrutinize the progress of previous month and to discuss the problem in the road of implementation.

In the case of evaluation a work book is to be maintained by the teachers concerned to record the merits and demerits of the students. The students are to be graded on the basis of their

ability to do work intelligentally, neatly and earnestly in time. Special attention shall be given to the students in lower grade. The Government of west Bengal is conducting both internal and external examination for work experience and the performance is recorded with the School Leaving Certificate. This can be adopted by the rest of the States for effective implementation of the programme. As the community and the officials are giving more importance for examination, generally the subjects without examination are neglected. Due weightage is to be given for admission to the technical, industrial institutions for their performance in the WE activities in schools. The national banks and other financial institutions are to come forward to help the people with better records in work experience to have self employment for their life. The "earn while you learn" programme is to be developed in each state as in the case of Kerala, leading the students for self employment after the completion of their academic period. Spot competition and exhibition under work experience is to be conducted in school level, district level, state level and national level for better encouragement of the students and the people, so that a national awareness can be created for better development of work experience programme in the nation.

The 'diets' shall impart orientation and in-service training in the district level and the teacher education centre for work experience at the state level is to be conducted by the state institute of education. A national institutes for the training of teache

educators of work experience is to be established by the Government of India to aware a national connection and policy in the matter.

The work load of the 'diets' can be reduced provided necessary change is made in the curriculum of training institutions of both primary and secondary school teachers, giving due important to the work experience in the syllabus.

The utilization of trained teachers in work experience activities is a very important factor for the effective implementation of the programme. Necessary funds for purchase of raw materials, equipments, rolling capital and teaching materials are to be provid by the institute of education in each state.

A new India self sufficient in agricultural, industrial, technical development can be built by the vocationalization of educatio in higher secondary stage on the basis of effective implementation of work experienced programme in primary and secondary schools of our nation.

Teaching Procedure and Teacher Training

By:

P. Sudershan Rao
Professor & Head
Vocationalization Department
S.C.E.R.T.
Hyderabad-500001

Introduction

Work Experience conceived under NPE 1986 as work oriented educational activity contributing towards the total development of the learner's personality, which includes development of the child as an efficient worker with a sense of commitment to the society and personal fulfilment. It (WE) contributes to the inculcation of dignity of labour and the development of stamina for the hard work.

Work Experience should be predominantly manual and the manual work is performed intelligently and not Mechanically, the learner should know why and where for every process. This problem solving approach enriches the educational component of the programme. The manual work becomes meaningful, when it is related to the basic needs of the learner, viz., food, shelter, clothing, health and recreation, community work and social service. It is necessary that this manual activity should result in some material product or involve the learner in some form of service to the community.

Vocationalization of education has been accorded a very high priority in the N.P.E. 1986. The introduction of systematic well planned and rigourously implemented programmes of vocational education has been recognised as crucial in the proposed educational reorganisation. The vocationalization is a distinct stream, intended to prepare students for identified vocations in several areas of activity. The main objective of the scheme is to provide diversification of educational opportunities so as to enhance individual employability, reduce the mismatch between the demand and supply of skilled manpower and to provide diversification of educational opportunities so as to enhance individual employability, reduce the mismatch between the demand and supply of skilled manpower and to provide alternative for those prosecuting higher education.

Under the Programme of Action, NPE has suggested that the work experience should be provided at school level. At the Primary Stage of education it should be an integral part of curriculum. At the middle stage the Work Experience programme should aim at developing confidence and psychomotor skills to enter into the world of Work directly or through certain occupational skills. The Work Experience Programmes at the lower secondary stage called pre-vocational are viewed as a linear expansion of that for the middle stage. The activities at lower secondary stage (IX and X classes) are Pre-Vocational and are also expected to enable the students to opt for vocational programmes at the Higher Secondary stage (+2 stage) with better appreciation and understanding. All the activities

envisaged from I to XII class level should have an integrated approach for the effective functioning of WE/Vocationalization programmes at various levels and Institutions of Teritiary level education. The passouts of various programmes should have an opportunity for vertical and horizontal mobility. The integrated approach of the WE/Vocational education programmes would form the base on which it would be possible to develop further productive skills and requisite knowledge, attitudes and values. The success of vocationalization programme is based on the strong foundation of WE programmes at school level.

Hence, the programme of work Experience are expected to ensure the modest preparation of students before they leave the school, to enable them to choose the occupation. The drop outs and the school leavers under these programmes will have sufficient skills and will cater to the needs of 90% unorganised sector. Such Work Experience/ Pre-vocational courses are to be handled by teachers with specific skills and competence.

Teachers for Work Experience

The Work Experience programmes comprises of varied elements, sucess of Work Experience programme depends on the quality of instruction imparted by the teacher. Since this area of education is related to development of proper attitude towards manual work and development of skills and to acquire some amount of pre-vocational orientation to be able to become more servicable to himself, his family, and society, there is a special responsibility on the

Work Experience teacher to achieve these objectives. He has to be not only the expert in his line of specialisation but also should have a broader frame of mind in terms of knowledge and understanding It will not be possible for any individual teacher to handle this subject in toto. It is expected that all teachers should work as Work Experience teachers, a large number of activities may require specialised personnel. The involvement of all teachers in this programme would logically imply their proper orientation and training in this area.

At the primary school and middle school stages, the work experience activities are varied and pertain to the six areas and related to the basic needs of the learner. Involvement of all subject teachers with their expertise in their subjects with sufficient orientation and training can do justification in implementation of WE programme. But at the secondary stage, the nature of activities remain the same as proposed for lower classes. Only their complexity will increase by adding more specific diversions with a definite prevocational focus and on-the-job work. The teachers at this stage must be specially trained and qualified in that appropriate field. It necessitates specialised teachers to be appointed specially for the purpose either on part-time or whole time basis.

Teaching Procedure

All successful teaching requires the use of sound methods. A successful WE/Pre-vocational education teacher must know how

learning in a productive situation takes place. The teachers should know:

1. The subject and contents, importance
2. Objectives and skills involved
3. Teaching method and activities
4. Tools and equipment and raw material
5. Conclusions
6. Evaluation

He must have the ability to pass his knowledge and skills to learners through suitable teaching methods. Method consists of those activities through which teaching becomes effective.

In conducting WE/Pre-vocational/vocational subject activities, a teacher has to bear in mind that process is more important than the product and skill development is the major goal. He has to remember certain crucial factors which will make him ensure progress and success in his task. These factors may be:

(a) Techniques of performing activities in the related WE subject to be the primary point of attack.

(b) Demonstration should be an important function before asking the student to perform the work.

(c) Division of students in groups according to natureof practical activities, size of the class and facilities available, plays important role in increasing effectiveness.

(d) Teacher co-operative attitude and reward or praise to students good performance is a plus point to motivate student's for better performance.

(e) Testing is an integral part of teaching and it should be continuous process. The teacher has to ensure that students take interest in the WE subject, in both theory and practicals, maintain regularity and follow safety measures.

For successful implementation of WE/Pre-vocational subjects, the selection of the teaching method should be governed by the following general criteria:

(a) The method should be considered in terms of the objectives/ aims of teaching.

(b) The interest and enthusiasm to learn skills should be aroused and maintained in the students.

(c) The method should be dynamic and not static.

(d) Use of Audio Visual Aids should invariably be made while teaching.

(e) Devices of demonstration, short term drills, techniques check sheet, time drills, motivation devices should form a part of teaching.

(f) The skills should be developed in a correlated and integrated manner and understanding.

(g) The method should stimulate the desire for further study and exploration.

There are two aspects of teaching each and every subject of study. One is skill and the other is non-skill. A good WE teacher must understand that skill building is different from learning a non skill subject, because of differences between methods of teaching. The skill building in WE is mostly concerned with the development of correct techniques, i.e. correct ways of performing the skill with accuracy and speed. But in non-skill subject like languages and social studies, it is required to develop knowledge, understandings and attitudes. The WE programmes are mainly skill in nature. As such every WE teacher must understand the principles of skill building.

However, the review shows that none of the methods of teaching is perfect. It is always advisable to use any method which the teacher thinks is best suited for teaching a particular group of students under particular conditions.

Teacher Education and Training

What is Training?

Training is an organised procedure, which brings about a semi permanent change in behaviour, for a definite purpose. The three areas involved are skills, knowledge and attitudes(some times includes social skills). But for all practical purposes training is aimed at specific, job based objectives rather than broader society based aims of education.

Benefits of Systematic Training

If a systematic training in WE is given to the teacher he can inculcate work skills amongst the students and turn number of children into good citizen and derive many benefits, such as:

(a) Meeting manpower needs

(b) Reduced learning time

(c) Improved performance

(d) Reduced wastage

(e) Less absenteeism

(f) Fewer accidents

(g) Reduced labour turnover

(h) Benefits to employees

Industries are production centres, where the worker/employees needs skills to turnout good production and make the whole system an economical one. Wise employers see for trained and skilled persons rather than giving training, which is a high investment. Whether wage employment or self employment, skilled practitioners with up-to-date training techniques to produce the results that are anticipated is the need of the day. This can be achieved only when the teacher is given good training and skills in WE.

Organisation of Inservice Training Programme to Work Experience Teachers

Training programmes need special attention and sustained and well organised decisive efforts with regard to their planning, organisation and successful conclusion. In order to realise the desired

objectives it is advisable to have a well thought out plan of action for selection and deputation of teachers for training, assessment of their training needs, identification of training institutions, budgetary planning and financial arrangement, execution of training programme and [illegible] and evaluation.

One of the weaknesses in organising training programmes is the identification of the right persons for a specialised training programme. If persons, suited to the area of training are well identified, selected and trained, the objectives are fulfilled to the maximum extent. Since the programme of training WE teachers is to be organised in different WE activities/subjects in the various areas, it is imperative on the part of the organisers of the training programme to identify the teacher who belongs to the subject area in which the training is being organised. It is desirable to have a comprehensive profile of WE teachers of each activity/subject. It helps in identifying right type of teachers for subject/activity training programmes and on the other hand helps in identifying training needs. The training needs can be analysed from the personal profiles of the teacher and from the analysis the training programme may be organised relevant to the needs.

As the training in WE needs special attention, it is not possible to organise all the activities at one place. Different institutions have to be identified depending on the activity for training. For identifying the institutions it is desirable to have an inventory of such institutions, areawise and activity-wise, which

engaged in the type of work for which training has to be arranged. The criteria for the selection of institution for arranging training to the teachers shoule be -

1. Availability of professional experts for training.
2. Availability of infrastructural facilities like laboratory/workshops, classroom etc.
3. Availability of Audio Visual equipment and other teaching aids.
4. Availability of library facilities.
5. Convenience to the institution for arraning training.
6. Financial implications.
7. Boarding and lodging facilities, if necessary.

A Teacher Deployment and Training

According to the phylosophy of Work Experience, all teachers are to teach and supervise Essential Activities and one or two Elective Activities. This would require general orientation in the WE/Pre-vocational subject for all teachers and skill training for some in elective activities with the help of experts actually engaged in the job. It would be necessary in the beginning to find out the existing expertise and interest of teachers for various WE activities, which would not only help in the selection of the list of Work Experience activities but also in arranging teacher training in these activities for which all other resources exist except teacher experts. For these activities, arrangements would have to

be made for teachertraining with the help of local craftsmen/professional experts. In discourse of time every teacher should acquire competence in teaching atleast two WE activities, one of which requires greater specialisation.

Besides, it may be necessary to deploy experts from the community for teaching-updating some activities of modern type on a part time basis. Regular WE teacher should be entrusted with the task of planning, co-ordinating and monitoring the Work Experience programme in the school.

Functions

Every WE teacher must be trained to fulfill the following functions:

1. Selecting, Planning and Organising Activities.
2. Exploring of Community/Local resources.
3. Providing tools and raw materials.
4. Teaching, demonstrating and instructing.
5. Motivating, supervising and guiding.
6. Evaluating outcomes.
7. Maintaining records.
8. Storing/Maintaining tools and equipment.
9. Displaying and sale of products.

TASKS

Functions	Tasks
1. Selecting, Planning and Organising activities:	Selection (i) Identifying work areas according to teacher's interest, expertise, local needs - essential activities and elective activities. (ii) Discovering resources in school. (iii) Identifying students interest in particular WE activity. Planning (iv) Distributing work experience activities - stagewise (primary, middle, secondary). (v) Utilizing available periods in school time table to the best advantage. (vi) Utilizing facilities available in school/out side school. Organising (vii) Dividing students to various activities according to their age, interest and apptitude. (viii) Seeking co-operation from other subject teachers. (ix) Inviting local experts for better practical skill.

(x) Organising field trips in nearby ongoing developmental activities.

(xi) Organising competition, display and exhibitions.

(xii) Awarding some products of useful nature to students for outstanding performance

2. Exploring of Community/ Local Resources:

(i) Surveying community/Local resources in co-operation with students.

(ii) Enlisting agencies ready to help work experience programme in school.

(iii) Establishing rapport with probable potential agencies.

(iv) Preparing list of experts available in locality.

3. Providing Tools and Raw Materials

(i) Advance planning and procurement of tools and raw material according to needs of approved work area.

(ii) Storing and maintenance of tools and preservation of raw material.

(iii) Ensuring availability of tools and raw material at work site.

4. Teaching, Demonstrating and Instructing

<u>Teaching</u>

(i) Giving importance and providing theoretical knowledge of work activity.

(ii) Establishing co-ordination between mental and physical activity.

Demonstrating

(iii) Stepwise demonstrating a work activity before the students.

(iv) Allowing a few students to try out the method of demonstrated.

Instructing

(v) Clarifying points/difficulties raised by students.

(vi) Allowing students to handle tools and use raw material.

5. Motivating, Supervising and Guiding:

Motivating

(i) Establishing relationship of work activity with home and local needs.

(ii) Emphasizing the importance of work activity in day-to-day life.

Supervising

(iii) Inspecting students at actual work activity situations.

(iv) Locating the wrong practices adopted by students in handling tools and use of raw material.

(v) Ensuring proper development of skill and attitude.

Guiding

(vi) Guiding students for taking up similar activities at home.

(vii) Guiding stueents for safe and proper use of equipment.

(viii) Giving proper guidance for acquisition of more knowledge on sources of information, availability of materials connected with work items.

6. Evaluating Outcomes

(i) Assessing day-to-day work relating to process, product, services by the teachers.

(ii) Making students maintain a work dairy under teacher's regular signatures.

(iii) Making it incumbent on each student to demonstrate his skill in doing some part of work related to work activity at the time of final exam.

(iv) Exhibiting the products manufactured or commodities produced by a student through his project followed by oral exam.

(v) Getting a picture of personality traits of each student.

7. Maintaining Records (for student's work)

(i) Keeping attendance of student in the particular work-item.

(ii) Maintaining cumulative progress charts of every student.

(iii) Grading of students according to their performance at suitable intervals.

(iv) Maintaining Annual Assessment records of the class.

(v) Preparing students profile chart of his progress in different W.E. activities.

8. Storing/maintaining tools and equipment:

(i) Getting a safe place for storing tools/equipments.

(ii) Maintaining of stock registers with proper entries.

(iii) Periodically verifying tools and equipments by other teachers.

(iv) Replacing lost/wornout tools and equipments.

(v) Writing off tools and equipments after expiry of estimated servicable life.

9. Displaying and Sale of Products:

(i) Displaying finished products of WE with names of students in a museum room.

(ii) Fixing a "Sale Day" at the end of session to dispose off saleable products.

(iii) Inviting parents, local dignitories and educational officers.

(iv) Arranging disposal of unsold articles in local market.

(v) Distributing sale proceeds (after deducting cost of material) to students.

Stage-wise Teacher Training in Work Experience

Teacher-Training Programme in work Experience may be effectively designed by giving due consideration on one hand to the objectives of work experience at the particular stage of schooling, nature of the pupils, preferred methods of teaching and the identified function/ tasks of the Work Experience Teacher and on the other to the principles and methods of training.

Teacher Training at Primary Stage

The contents of work Experiences at the primary level have three components: Awareness of environmental studies and application, experimentation with materials, tools and techniques, and work practice. Through these contents the young children will enjoy participation in a large number of activities at school, at home and in the community rather than being engaged in bookish education alone. Therefore emphasis should be laid, in the teacher training programme, on the development of good health, environmental sanitation and beautification practices through WE activities. The preferred methods of teaching work experience at the primary level are:

To fulfill the above objectives the teacher training should firstly emphasize training of the Work Experience Teachers in the use of "Observation" and "Enquiry" methods of teaching, secondly in experimentation with materials, tools and techniques proper, thirdly they should be trained in the use of "Problem-solving Approach", which lays stress on awareness of problems, arriving at the solution

of problems, planning analysis and detailed preparation. Thus teachers of work experience at the primary level should be oriented in the four methods of teaching (1) Observation, (2) Enquiry, (3) Experimentation, (4) Problem Solving. An approach to such orientation may be outlined as follows:

1. Observation Method

The world of work should be explored in productive manual work and service situations. Organizing observation activities involves several functions and tasks of the work experience teacher (enumerated earlier) are:

(1) Relating, planning and organizing activites.

(2) Employing of community/local resources.

(3) Motivating, supervizing and guiding.

(4) Evaluating outcomes.

(5) Maintaining records.

The teacher should be trained in selection and planning the proper activities suitable for observation method from his school subject. He should be trained in motivation, supervising and guiding the pupils in using appropriate techniques of observation. For this purpose he should also be well conversant with the procedure, materials required, and other facts pertaining to the selected activity service. He should know how to arouse the curiosity of the pupils to undertake an observation activity, to quick their thinking and observation towards the critical aspects of the activity/service,

to help the pupils in formulating the questions, and to supervise their performance throughout the exercise. For evaluating the pupils performance in the 'Observation Activities' the teacher should be trained in preparing observational schedules and in assigning appropriate grades to the various components of the observational activities undertaken by the pupils e.g. Theme of observation, relevance and specificity of questions raise, accuracy and adequacy of observations, recording of observation, ability to work in groups, reporting skills etc.

In addition to training in evaluation the work experience teachers should be oriented in 'Maintaining Records' relating to observation techniques: (a) Devising Appropriate Observation Sheet for use by the pupils, (b) Devising and using pupils profile for recording pupil progress in knowledge, abilities, habits, attitudes etc.

Experimentation with Materials, Tools and Techniques

The teacher of Work Experience should be familiar with the material and skills involved in various work practices like handlin of clay, paper, cardboard, handling of simple gardening and agricultural tools, safe handling of knife, needle, scissors etc., handling of various types of cleaning and working materials, skill of preparing meals, acquaintance and skill in the use of colours (dry, water, oil) for making drawing, scenery, charts etc., making garlands and bouquets etc. Work Experience activities under the

above area involve the following teacher functions for which appropriate training should be provided - (1) selecting, planning and organizing activities, (2) exploring of community/local resour (3) providing tools and raw materials, (4) storing and maintaining tools and equipment under function 3 and 4 require the teachers ne to have knowledge of the tools and materials required for these activities listed, he should also be trained in proper selection the tools and materials, which are of no-cost or low-cost. He sh be trained in the use of the tools for the particular activity and also for their maintenance. The work Experience teacher should be trained to perform the various activities so as to give theoretical content while doing the practical work.

Inquiry Method

Inquiry training can be used effectively by the teachers of work Experience. Use of this method involves the following functions: (1) Selecting, planning and organizing activities, (2) Motivations, supervising and guiding, (3) Evaluating outcomes, (4) Maintaining records. They should be trained in the effective implementation of the inquiry method which comprises of five steps: (1) Encounter with the problem, (2) Data gathering (exploration), (3) Data gathering (experimentation), (4) Formulating an explanation, and (5) Analysis of the inquiry process. He should learn to motivate the students and to present a problem in challenging manner for inquiry. He should explain the rules or procedures of inquiry. Then he should be trained in helping the pupils select relevant

information from memory through providing clues and reinforcement. He should also know how to help pupils isolate relevant factors (variables), to formulate hypotheses and to test them. Further he should know how to guide the pupil arrive at a viable explanation or solution to the problem enunciated. Finally the work experience teacher should also be trained in helping the pupils to examine the strength and weaknesses in the inquiry process adopted by them.

Teacher Training at Upper Primary Stage

At the upper primary stage the content will comprise of two parts Essential Activities and Elective Activities. The component of work practice in elective programme should be given 50% weightage. The learning and mastery of skills become more important than at the lower primary stage.

Work practice at the upper primary level would involve the main production of some items prepared earlier under experimentation and also the performance of some services which can be assessed in terms of some return in cash or kind. The need for giving more intensive skill component to the WE programme at the upper primary stage emerged out of the concern for the large number of children who drop-out/opt out of the educational system after 8 years of general education and seek absorption in the World of Work and services in the community. In view of this emphasis and need for skill development, WE teachers should be adequately trained in imparting work related skills to the pupils. The teaching method for imparting skills is "Demonstration and practice method."

Practice Method

The usual way of imparting skill is by an experienced trainer performing the working activity at pre-determined speeds, telling the trainee how to do the task, showing the trainee the movements involved and explaining the training while he practices.

This method of teaching involves the functions of -- (1) Providing tools and raw materials, (2) Teaching, demonstrating and instructing, (3) motivating, supervising and guiding, (4) evaluating outcome, (5) Displaying and sale of products. For the effective use of this method work experience teachers should be trained in carrying out the following tasks, advance planning and procurement of tools and raw materials according to needs of approved work area, their storing and maintenance, providing theoretical knowledge, establishing coordination between mental and physical activity, stepwise demonstration before student, clarifying students difficulties, imparting students at actual work, locating wrong practices of the student, ensuring proper skill development, assessing work relating to process product, service by the teachers.

To fulfill the above objectives of training the Work Experience teachers in the method of demonstration, the following approach may be adopted.

Training in the effective use of the 'Demonstration and Practice' method would involve training for proper planning and organization, and use of visual material, discussions, question and answer techniques to back up the demonstration. Since a smooth performance during

demonstration increases confidence on both sides of the learning relationship sufficient emphasis should be laid on adequate prior rehearsal of the skill, often to a pre-determined speed and quality standard. The demonstration should as far as possible use the actual equipment in the real-work place i.e., on-the-job training, if skills are to be taught, the teacher must be trained with the actual equipment in real classroom situations. Alternately, realistic and accurate reconstructions of the working environment are desirable. Besides the above the teachers must be given sufficient training in coaching skills to help the pupils during the practice sessions.

A typical skill-type session based upon the demonstration and practice technique might look like this:

Commencement

Check (positioning of trainees, everything ready).

Demonstrate silently at usual speed for task.

Demonstrate the task again, this time with verbal explanation, one stage at a time.

Discussion, question and answer, clarification.

Demonstration by trainees individually with trainer correcting faults.

Trainees dispersing to practice

The Work Experience teachers need to be trained in preparing the strategy for instruction, which consists of three important facets of their tasks; the written work necessary for presenting

the session, the materials and equipments to be used during demonstration and practice (including any visual aids) and finally any instructional material to backup the session such as hand outs etc Hence work experience teachers should be trained in writing the teaching objectives in behavioural terms to facilitate attainment of the standards of performance required in the students. Second they should be trained in planning for the training session comprising of three divisions - Commencement, Core, and Conclusion.

The commencement phase should have the objectives of arousing interest, setting the scene for the main subject matter, motivating the students.

The Core is the main part. The teachers should be trained to structure this part on the basis of principles of learning process choosing the appropriate method. He should be trained in deciding the degree of importance to be attached to the information or skill Further he should be trained in sequencing or ordering the instructional materials for use. He should also learn how to arouse the interest and enlist the active participation of the student.

Conclusion

The major purpose of this session is to checkthatthe objectives have been achieved. The teachers of Work Experience should be trained in evaluating the pupils achievements.

High School Stage

The content of work experience at the high school stage, just as at the upper primary stage, comprises two parts i.e., essential activities, in which children will be expected to conduct work study more systematically and an elective programme of productive work and service which would result in some remuneration in cash or kind.

The nature of essential activities remaining the same as proposed for classes VI-VIII, only their complexities increase by adding more dimensions with a definite free vocational focus on the job work. In elective programme work practice could be taken up in the form of projects with sequential activities relating to vocations in the productions or service sector.

Therefore the teachers of Work Experience at high school stage who are handling free vocational courses either inservice or preservice, should be given training on the following guidelines:

1. The pre-vocational courses are to be administered mostly in the form of actual, practical work with minimum essential theoretical instructions.
2. The subjects/activities selected should be of continuation of the upper primary stage as far as possible. So that the equipment/material available in the school or locally available material can be put to use.

3. Emphasis should be on the identification of problems and problem solving by the pupils.

4. The resources of the community should be mobilised as far as possible, and the teachers must be trained to ensure maximum utilisation of the available limited human and material resources.

5. Visit to the work sites relevant to the courses, in the community should form an integral form of the teaching learning method.

6. The local organisations like Panchayats, Mahila Mandals, Youth Clubs etc. should be approached if necessary for the supply of raw material, equipment, sale of finished goods.

7. Skilled craftsman and professional personnel in the local community should be invited.

8. Institutions to have the essential threshold facilities for conducting the pre-vocational (courses) activities/subjects.

9. The finished products/services should have saleability and commercial acceptability.

To satisfy the above objectives and guidelines, the work experience teachers of high school level should be trained in the various methods of teaching outline and discuss above as best suited to the particular work/activity selected under the essential and elective programmes.

Conclusions and Suggestions

In view of the realisation of the importance of work experience as reflected in NPE-1986 and of the immense necessity to cater the needs of the unorganised sector for the skilled workers to keep them in direct production for the prosperity of the national economy, it is necessary that due importance be given for training the teachers of work experience, so as to mould the students to become suitable for wage/self employment.

The following suggestions are put for devising a suitable training programme for the work experience teacher (Pre-service/Inservice) to achieve the above objectives.

Teacher Training Programme (Primary)

(a) In-service

Duration 12 weeks intensive training.

(b) Pre-service

(i) 9 months Post-Higher Secondary full time certificate in Work Experience.

(ii) In case of Teacher Training Courses due weightage should be given to work experience subject on par with other methodology subjects.

Secondary Level

(a) In-service

24 weeks incentive training (split into two spells) in any one pre-vocational course.

(b) Pre-service

(i) 40 weeks duration course for undergraduate (restructured course)/Higher Secondary (Vocational) - Diploma holders/ITI certificate holders.

(ii) 2 years full time training in any one pre-vocational course after graduation.

Refresher courses

Suitable refresher courses of 10 days duration may be organised for all the inservice work experience teachers to acquaint them with the modern developments and trends in the tools and techniques etc., of their respective fields.

Teaching Procedure and Teacher Training

By:

N.K. Chaudhari
Women's College of Education
Faizpur
Distt. Jalgaon

Introduction

In a free and democratic society there cannot exist a dichotomy between the head and hand. In pre independent period the education was aimed at only making clerical personnel for satisfying the needs of the British bureaucracy. But after independence the Indian Educationists beging to think in a different way. This new thinking was reflected in the various reports on Education after 1948. The most important among these is the Education Report under the Chairmanship of Dr. Kothari. The commission has stressed the need of relation between Education and Productivity. It observed "The link between education and productivity can be forged through the developme of the following programmes which should receive high priority in the plans of educational reconstruction.

1. Science as a basic component of education and culture.
2. Work Experience as an integral part of general education.
3. Vocationalization of Education especially at the secondary level.
4. Improvement of scientific and technological education and research at the university stage with special emphasis on agriculture and allied sciences.

Work Experience, if properly integrated with general education can help to raise the productivity of the nation and to serve as an instrument of economic change in the Indian Society. But today the gulf between the educated and the uneducated, between the intelligentsia and the masses is quite deplorable. The world of work and the world of elite is supposed to be quite different.

If Work Experience programme is carried out in schools in proper way these defficiencies can be removed and in real sense education can become an instrument of change. For carrying out the W.E. programme in proper manner the teachers must have knowledge and skills in various W.E. programmes. They must be well versed with the teaching procedure of Work Experience.

Present Position of Work Experience Training

The NCTE has suggested to include Work Experience in teacher education programme. Most of the universities has included W.E. as compulsory component of Teacher Education programme. But there is no examination for the subject. Internal marks are allotted to each student for his performance. But there seems to be little reliability and validity to these marks. Hence the W.E. programme is not seriously taken by the students and even by teacher educators.

Training of Teachers in Work experience

Need: The philosophy of W.E. treats W.E. as an integral part of general education. There is therefore greater need to introduce

the programmes of W.E. in a systematic manner in colleges of education by revising and revitilizing the present syllabus. Inclusion of WE in the syllabus of college of education both in theory and practice, therefore, becomes very essential. Work efficiency should become part of teaching-learning process. Unless the teacher removes the dichotomy between theoretical learning and work and forms suitable attitude towards work, the programme of W.E. in schools will not get any fruit.

Need to change the Curriculum of College of Education

In view of the changing curriculum of Secondary Education many universities in India has included WE as one of the subject in the syllabus of colleges of education. But there is a great difference in content and implementation of the programme of WE. In secondary education honest efforts have been made to associate education with work and real life situations. This needs to be reflected in teacher training programmes to make it more meaningful to the teacher educators and student teachers. The secondary schools expect every secondary teacher to know the basic concepts of work experience. The planning and implementation of the WE programme will be fruitful only when the student teacher concerned is properly oriented.

Proposed Syllabus in work Experience for Colleges of Education

It will not be possible for secondary training colleges to provide training in all the programmes during the course of one year. A core programme involving common skills from the clusters of work experience needs to be considered.

It is therefore, necessary to propose a common core programme for all the student teachers under training in colleges of education.

Proposed Syllabus in Work Experience for Colleges of Education

It is divided into four parts:

1. Objectives
2. General topics in theory in Work Experience
3. Practical Work
4. List of equipments

1. Objectives of WE in Colleges of Education

(a) To remove dichotomy between cultural and vocational education so as to remove social distinction based on differing educational opportunities.

(b) To reduce the existing emphasis on book learning and to relate the academic knowledge to socially oriented productive work.

(c) To familiarize student-teachers with tools, processes and materials of modern technology and to impart skills in using them for productive activities.

(d) To develop among student-teachers an awareness of the direct relationship between modern production and disciplines of Maths and Science.

(e) To enable student-teacher to develop habits of work planning, work-study, precision, persistence, enterprize and innovation which is basic for the maintenance of efficiency and progress in all walks of life.

(f) To provide opportunities for student-teacher to discover their aptitudes and interests through a wide variety of jobs scientifically planned and executed so as to enable them to relate occupational exploration for secondary school youth.

(g) To acquaint the student-teachers with the syllabus of work experience of schools.

(h) To develop the abilities amongst student-teachers to evolve and redesign programme of work experience for the schools depending upon the needs of the locality where the school is situated.

(i) To develop among student teachers the capacity for character building and inculcation of values through WE activities.

2. Theory of Work Experience

Theory portion consists of various topics connected with the concept of Work Experience and implementation of the Work Experience programmes in secondary schools. It also emphasizes methodology to be used while implementing practical aspects of the programme. The syllabus further acquaints the teachers with the syllabus of the secondary schools. The objectives of the programme can be obtained

through fruitful dialogues between educational institutions and industries thus building an important avenue for vocationalization of secondary education. The theory portion further emphasizes WE programmes as part of general education programmes and gives guidance for evaluation of the programme.

3. Practical Work

The programme envisages an integrated course in Agricultural, Technical and Home Science Clusters for all the students. About 70 periods of 45 minutes duration are to be provided for the total programme. As far as possible 3 continuous periods are to be given to do full justice to each job. Agricultural WE is proposed to be compulsory both for Rural and Urban colleges to equip the teachers with productive approach to modern agriculture.

The project method should be applied to the various units included in the programme to emphasize self-learning. It is desirable to orient teacher-educators in WE programmes before starting the programme especially during the first week of the academic year or at any suitable time.

Implementation of the Programme

1. The existing duration of the periods can be modified and a special theory period can be included in the weekly time-table of the colleges of education. Thus 25 periods can be made available for theory work during the year.

2. Student teachers are divided into groups for WE programmes. Double periods for practical work may be utilized in the weekly time-table.

3. The practical programmes can also be organized on Sundays and holidays when the equipment of the co-operating schools can be available.

4. The practical programmes can also be arranged during the programmes of the co-operating schools.

5. The periods in the second-term after the lessons are finished can be utilized for developing skills of the students in technical cluster. The agricultural programmes can be arranged during the first-term when the period is quite suitable for the work.

6. Assistance of Krishi Vidyapith, I.T.T.'s, and Extension Centres of Agriculture Department can be secured through fruitful dialogues between the authorities and members of the colleges.

7. The co-operation of the local experts in the fields will be helpful for the guidance in carrying out the programmes.

8. A short orientation programme in the theoretical background of WE and world of work may be organised for the teaching staff of Colleges of Education.

9. The theoretical part in the syllabi of WE and world of work may be linked with suitable topics from the various subjects in the existing syllabuses of the Colleges of Education.

10. The student-teachers in the training colleges will only get a general training in Work Experience. It is not possible to offer training in all the Work Experience programmes to the B.Ed. students. Hence, it is recommended that the student-teachers after completion of the course may select particular two training programmes, one from Technical Cluster and the other from Agricultural Cluster, required by the schools they join. The training may be arranged by the Department in vacations or at the beginning of the academic year.

Equipment and Finance

A self-sufficient unit for organizing an independent programme in Work Experience will cost about Rs.20,000/- subject to fluctuations in rates.

An independent and well furnished workshop of 7 x 40 sq. mtrs. will facilitate the concept of the Work Experience programme in the Colleges of Education.

In the beginning, due to some financial difficulties, it may not be possible for all the Colleges of Education to have all the equipment, a suitable workshop and a piece of farm-land for the proper implementation of practicals in WE programmes. For technical schools, government technical centres and Industrial Training

Institutes may be approached for co-operation wherever possible. To start with, the open area in the campus of the college may be used for agricultural programmes. Wherever possible the co-operation of local farmers can be obtained. Schools with agricultural subject will also get some solution if small expenses towards planting etc. are incurred by the college.

The Evaluation of Work Experience Programmes

Modern techniques of evaluation also need to be followed in the area of Work Experience.

Evaluation of the Work Experience programmes involves:

1. The evaluation of the student teachers performance in terms of knowledge, attitudes, and skills.
2. The evaluation of the programme, teaching methods, instructional materials, examination and tests etc.

As regards 1 above behaviours given below may be assessed in three or five point scale. (a) student teachers get opportunities to participate in WE programmes, (b) student-teacher are ready to do any work with hands and use the tools and materials of different kinds, (c) student teachers develop technical skills for handling of the materials tools and equipment, (d) student-teacher develop the habit of planning and work study, (e) student-teachers develop proper work-habits for saving time, energy and available resources, (f) student-teacher understand the casual relationship and scientific principles related to the activity, (g) student-teachers develo

curiosity and are inquisitive about scientific principles, (h) student-teachers develop the attitude of co-operation while performing the activities, (i) student-teachers develop insight into the occupations related to areas of WE, (j) student-teachers develop enthusiasm while performing and participating in the programme.

As regards (2) above the following techniques may be adopted:

(a) Informal talks with trainees, teacher-educators, Head of the institution and work experience teachers of the schools.

(b) Observing lab work and classroom participation.

(c) Assessing the records, journals of the students.

(d) Assessing the various process leading to the product and the final finished product.

Reference

A Hank Book in Work Experience and Social Service for Teacher Educators in Colleges of Education (1976).

Education, Work Experience and Community Involvement
Case Study of Pabal Experiment

By:

Dr. S.S. Kalbag
Vigyan Ashram
Pabal
Dist. Pune-412403

Introduction

Beginning with Nai Talim, advocated by Gandhiji and continuing with studies and educational commissions, for more than 40 years, we have all agreed that true work experience should be an integral part of education and should be given to all primary and secondary school students. In spite of several changes in the government at the Cent there has been no diminishing of the stress on vocationalization of education.

It is therefore fair to conclude that there is a national consensus, for greater stress on vocationalization of education for all students; this should help them acquire skills that are relevant to their everyday life and the community involvement in education shoul be greater. Rural areas should get more attention in designing such programs.

On the basis of the NPE 1986, and its review by the Rammurthy Committee, the Education Department of MHRD has worked on several proposals to give effect to the above policies. In particular, the

schemes aim at providing work experience to students of the academic stream, at lower secondary level; the time allotment will be about 20% and it is hoped that the actual content of work experience will be such as to give relevant experience, particularly for rural youth, will inspire community involvement and the program could be operated in the given financial constraints. It is also desired that similar facility can be made available to out of school youth and girls in particular.

The Vigyan Ashram, Pabal, has been working since 1983 on developing a new system of education, specially for rural areas. The basic assumption in this philosophy has been that true education gives not only the ability to think, (analyse the situation and plan for further action) but also the capability to act. The latter includes, skills training, learning to gather information and access to facilities.

The approach evolved was to give multiskill training, in a real life situation and use semi-commercial operations to give training to students and services to community. This linking of education to community, not only makes the school a true community centre, but also builds up assets for the community and educational system.

The Rural Technology program, so evolved since 1985 has been recognised by the State Education Board, Maharashtra, for its SSC examination and is now given to about 500 students in four schools in the Pabal region. The students cover the 8th to 10 stds. and

spend seven hours per week, at one stretch. The same course is also given in its entirety or in separate modules to out of school youth. The students, both formal and non-formal extend services to the community with considerable support from the staff. The community pays for these services thus controlling the relevance and a threshold quality.

We have found that such a system gives reasonable skill train to rural students at a low cost; services to the community, even where no such services are commercially viable; it actually nurture the demand for such services until commercial enterprises sprout u

Such an educational system also produces assets, both for the school and the community. It can provide strategic services like water prospecting and medical and agricultural lab services.

The school now becomes, not only a community centre, but also a channel for introducing new technology into the village and even can solve simple problems in development.

Training of instructors

For implementing above program, we needed the multi-skilled instructors, about 15. We trained many of the dropouts, through our nonformal Rural Technology program and used them as instructor not only in our Ashram but also in schools in other villages.

We have made our own textbooks in Marathi and also audio and video tapes to aid the instructors.

The program has set up the workshop and other infrastructure in the school at a minimum cost. Only that equipment that the student is likely to use later after leaving the school has been used for training. Thus the equipment isnot selected on the basis of modernity but on the basis of economic viability of products/services provided. The average school can get a reasonable workshop and facility for giving work experience in workshop technology, electrical, transport, construction, agriculture and animal husbandry, and home and health, at a cost of Rs.40,000; this is adequate for one division of 40 students in 8th, 9th and 10th stds.

The school timetable has been rearranged to give an entire day for the work experience class.

The school provides services to the community, involving skills being taught in the school. The services are paid for by the community at rates such that there is 15% surplus after paying for the direct costs and labour.

The community paying for services, ensures, not only relevance of the skills being taught but also a quality control by the community. This sort of community involvement is more democratic than a few individuals being involved in decision making.

The surplus from the community service collections, is distributed to the school, staff and students on an agreed basis. Incentive awards may also be given on the basis of this.

The school also takes in, non-school youth for training in the specified skills through a nonformal practical course.

We have found such nonformal courses not only beneficial to the school drop-outs but they also are found useful in training the school students. They are the mainstay in the provision of community services.

Our Experience

The important points from our experience, are highlighted below:

Rural Technology
A New System of Education

Chart No. 1

Main Features

Gives Relevance to Education
Integrates Rural Development with Education
Introduction to Modern Technologies
New Opportunities in Rural Economy
Helps Non School Youth Also
Maximum use of Capital and Human Resources

Themes Covered

Workshop
Energy & Environment
Construction
Eng. Drawing
Agriculture
Animal Husbandry
Water Resource Development
Home and Health

Chart No. 2

Community Services

Bharat Vidya Dham	64 252	Jan-Dec. 1990
New English School	28 584	-do-
Pragati High School	88 251	-do-

Assets Through 10th Std. Students: Year 1990-91

Drinking water Tanks	Children's Slide
Bricks and Trusses for Staff Room	See-Saw
Class Room Benches	Workshop Roofing
Steel Furniture for School	Poultry Shed

Other Projects by Students

Building Some Houses	Water Supply for Primary School
Folding Ladder	Building W.C. Block
Poultry Cages	Agriculture Crop Survey
Blood Test of Children	Childrens Health Survey

Chart No. 3

Rural Community Oriented WE/SUPW A Proposal

1. Community Collects Rs.50,000 for Equipment and Rs.40,000/- for Workshed etc.
2. Grant-in-aid provides 2 Multiskilled Instructors.
3. Drop Outs also get Training and Some Earning.
4. School gives Technical Training and Community Services.

Services Provided

Pest Control	Hand Pump Repair
Nursery	Electric Wiring and Repairs
Petrol engine Services	Construction
Tyre-Tube Service	Workshop Farication
Poultry	Plumbing

Work Experience and Community Participation

By:

Mrs. Rajni Kumar
Chairman
Patel Education Society

We are living today in a very complex period of history where momentous changes are taking place in the world; and as we enter the 21st century further challenges will be thrown up with new vistas of knowledge opening up before us in the field of science and technology. It is in this world that our students will have to live and work and to face the paradox of coping, on the one hand, with the problems that science and technology will pose, and on the other, with a situation where masses of our people may still live in conditions of grinding poverty and degradation. It will call for deep insight into societal and human problems and a judicial blending of technology and humanism to bring about needed changes towards the establishment of a socially just, economically stable, and equitable society in which we can all progress and live together as brothers in peace and harmony.

We, as educators and teachers, have to prepare our students accordingly and give them an education that will stress equally the development of the mind, heart and hand; to help them acquire, hone, and refine the requisite skills they will require for entering the world of work and the world of technology; as well as the skills of communication and the building of human relationships with all the required attitudes and values that go with it.

It is in this context that the National Seminar on Work Experience is being held and the purpose of this session "Work Experience and Community Participation" is to deliberate upon and formul te strategies for strengthening the linkages between the school and the community, and thereby make Work Experience more effective.

The rationale behind the introduction of Work Experience as an integral part of the curriculum is too well known to need elaboration at this seminar, as well as the benefit that can accrue both to the individual student, as well as to the development of society generally.

That the work Experience programme, in spite of very good work done in various states and in various institutions over the years, has failed to make a real impact on our academically-oriented education system as a whole, is also accepted and needs no elaboration in this paper.

The constraints and restraints under which the programme has been operating since 1975 after the recommendation of the Education Commissio[illegible] 1964, have been clearly spelt out by the Programme of Action of the New Education Policy of 1984, and by the recent Acharya Rammurthy Review Committee Report, which has made some very valuable suggestions for this area of education, especially the "work bench" concept and the introduction of some vocational modules for all students at the Senior Secondary stage instead of

the two streams of vocational and academic education existing at present and for which the vocational stream has few takers.

There is no doubt that to effect a real break-through towards vocationalization of secondary education - one of the declared goals- both work experience and vocational education have to be redeemed from the present marginalised position they are occupying, and some very firm decisions will have to be made by our policy makers and planners regarding the future thrusts, priorities and changes to be effected in both the structures and process of education to give work Experience its proper focus.

Having stated this, I would, however, like to stress that even within the existing framework, and given the constraints, there is much that can be achieved through local and school initiative, by establishing strong links and sharing resources in a close school and community interaction.

Flexibility of Democratic Functions

This is possible because two attractive features of the work experience programme; its inbuilt flexibility and the autonomy and democratic functioning it offers the schools and school Principals to plan and implement Work Experience in their own level, without any set or formal curricular pattern, on the basis of the broad guidelines prepared by NCERT, SCERTs, the DIETs, the CBSE and other Boards and Departments of Education. It is true that the flexibility and autonomy given has often resulted, in many cases, in

"soft options" being offered to students under this head, like dance, or music, or art, far removed from the basic concept of "education through work". Therefore adequate supervision and monitoring of the programme is absolutely essential. This is an area which has been badly neglected.

Need to Upgrade School Facilities

With much more opportunity for entrepreneurship, self-generating employment schemes and creative enterprises, schools must start upgrading their laboratories and workshops, install more technical equipment, as well as re-training their teachers in new skills, so that the various work experiences offered to students are updated, relevant to the times and useful to society.

If some managements and thrusts have resources to build sophisticated multi-purpose halls, gymnasium and swimming pools, they can equip their schools with equally sophisticated technical workshops as is found in schools abroad, and set the pace for a new thrust and a new outlook towards a work-oriented education.

Community Support

There are many skilled people in the community, artisans, craft men and professionals, who might be willing to offer their skills and expertise to enrich the regular skill training imparted by the regular teachers, and the schools would do well to utilise their services on a part time basis as required. The educational authorities should not create hurdles regarding the employment of such personnel.

Schools which are not well equipped should supplement their physical resources through the co-operation of the parent Teacher Association, or through service oriented clubs like the Rotary and Lions Clubs or other philanthropic or social organizations. If approached they are generally not unwilling to support such educational projects.

Work Experience and Community Service in Action

The programme of Work Experience and Community Service adopted by Springdales School, New Delhi, in the early seventies, which has been considerably enriched over the years and which is also in vogue in many of the institutions in the Capital today, has been made possible by the active involvement of a large number of subject and specialist teachers who have pooled their skills and talents to give the students up to Class X a variety of vocational skill training activities. These have developed out of the subject disciplines as a part of the holistic education offered by the schools.

From the Science disciplines have come courses in electronics, computer science and repair of electrical gadgets, preparation of detergents, candle-and chalk-making, making of solar cookers, and photography. Some schools have introduced colour photography labs and training in cinematography with students making short video films.

From the Creative Arts Department, students have become skilled in batik and Tie and Dye, macrame, Tailoring, Screen-printing,

Textile-printing, Pottery and Ceramics (with the help of a professional potter from the community) Basket-making, Puppetry and Theatre Craft.

From the Home Science Dept., students have taken up Meal Planning and the preparation of low cost nutritious diets, fruit and food preservation, and the care and development of young children. Library Science and Nursery Teachers Training are other courses offered.

This skill based programme is given a social orientation by utilising the good produced (which are of good quality) for the benefit of the school itself, and for the community around.

The Community Service Aspect

At the plus two stage all students without exception take part in the community service part of work experience by working in groups of 20-30 each for four periods per week (2 double periods) in the regular time table in actual work situations in the community.

Some students work in two local hospitals performing duties in O.P.D., the bandaging and plastering rooms, the baby clinic, the children's ward, and post operative ward. Others are attached to Institutes for the Blind, the Mentally and Physically Handicapped. They perform a number of duties such as reading, preparing tapes for the blind, taking them out on excursions, playing chess, and seeking new exciting experiences for them such as swimming and gliding.

Another group works in nearby slums, bastis and urban villages. They conduct adult literacy classes, non-formal classes for drop-out children, remedial teaching for the under achievers from the municipal Primary Schools, organising health and immunisation camps in conjunction with Rotary Clubs, and organising literacy melas, sports bonanzas, puppetry and street theatre and songs on the theme of literacy, drug addiction, dowry and other social issues.

Yet another group works in the school preparing the materials for those working in the community, such as educational aids for teaching the illiterates; puppets for the puppet plays, writing scripts for the theatre group for performing in the community; and painting murals for decorating the children's wards in the hospitals.

Apart from learning the communication skills required for breaking down walls and building up relationships in the community; vocational skills learnt up to Class X, e.g. tailoring, candle-making, chalk-making, detergent-making, are taught by the students to the women in the slums and bastis, who, in turn, produce saleable articles which are sold either in the school itself or at literacy melas and school fetes.

The Building of Community Linkages

During the process of conducting these community service and work experience programmes, close linkages and relationships are built up between the school and the community; with the patients, the slum dwellers, the handicapped children as well as with the

personnel in charge of the Institutions, and many other agencies in the field. For example, in the slum development and literacy work, contact has to be made with the Pradhans and leaders of the slum, with the Director and personnel of the State Resource Centre who supply the literacy kits and materials; with the Slum Commissioner who suggests different ways in which students, with the leaders of th Rotary Club, can contribute; with the doctors, nurses, orderlies and the Medical Superintendents of the hospitals. By actually working in the institutes, the students learn many new skills of communicati of how organisations are managed; how necessary team work and co-operation is needed at all levels to produce good and efficient functioning; and what problems are found at various work places.

Evaluation

Each student keeps a project diary in which he records his impression, the work he has set out to do, and whether it has been achieved or not, including as self-analysis of the contribution made The teacher in charge also keeps a record of each student awarding him grades or marks at the end of each term, for:-

1. Regularity and punctuality
2. Interest and attitudes
3. The end-product (how successfully the work has been implemented)

The teacher also consults the people at the various agencies to ascertain their opinion of the work attitudes and interest of each of the students assigned to them.

The final grade awarded to the student, based on his/her work during its two-year period of Class XI and XII, is sent to the Central Board of Secondary Education for incorporation into the final examination certificate.

Learning on the Job at Work Sites

On the basis of experience gained in implementing this Work Experience and Community Service programme, it should be possible for schools now to go one stage further and explore the possibility of using the vocational and professional skills available in the various work premises in the local area for training their students in work skills on the job, away from the classrooms. It might be in a local factory working on lathes or machines, or on an agricultural farm, or a poultry, pig or dairy farm, or in a handloom, weaving or cottage or small-scale industry, or in a bakery, a bank, a hotel, motor workshop, garage or tailoring establishment.

The process would be the same, identifying the work place, contacting the personnel concerned, and after obtaining consent, to send students in groups at specified times in consultation with the agencies concerned, but the main difference being that in this project the theoretical knowledge would be imparted in the school by the relevant subject teacher and the practical application of

the theoretical knowledge would be imparted by the skilled artisans and professional workers on the actual work site. The participation of the community would be greater, and the quality of the work skill learnt should be higher. There may be initial reluctance at allowing students to work on some work sites, the owners fearing that their production may suffer, or that damage may be caused to their equipment or to the students themselves by careless handling and that the time spent on training and supervising students could be counter-productive. If our experience in sending students to hospitals and Institutes for the Handicapped is any indication, their presence has not caused any resentment or dislocation, and on the contrary, they have been welcomed as additional helpers; but it must be acknowledged that the skill training in these situations is not so sophisticated or time-consuming. The success will largely depend on the seriousness and discipline of the student and the supervision exercised by the teacher in charge, and an impression being gained by the receiving agency that the students are helping in the production process.

Sharing Technical Facilities

With the "cluster system" of schools now underway, it should be possible for the education authorities to equip one school in the cluster and let it serve as the centre to feed other schools in the area.

It should also be possible to set up district workshops with the support of the industrial houses and service organisations in collaboration with Shramik Vidyapeeth, where students from neighbouring schools could be sent in turn for their initial training before being sent to the work places for "On the Job" experience.

Creation of a Climate

Since this will mean a considerable amount of planning, preparation and strategies worked out for implementation by the schools in consultation with the local community, institutions and workplaces, a proper climate has to be created for its acceptance using the mass media also to introduce the scheme to the public.

As in the case of the "Special Drive for Adult Literacy" (SALD) circulated by the CBSE, making it compulsory for all schools to introduce it but making the actual teaching of learners optional for students; similarly such work experience schemes relating to practical applications of "education through work" should be made mandatory for all schools while allowing the student to volunteer for the particular work experience suited to his interests and aptitudes within the limits of what the school and the community can offer.

Restructuring of Academic Courses

Restructuring and updating of the academic courses at the Secondary and Senior Secondary stages will have to take place reducing the quantum and the depth of the courses and the weight of the

textbooks, making adequate time and space available in the curriculum for this most important component of the educational process, with more seriousness of purpose given to it by all concerned and with greater community participation and a mutually beneficial school and community linkage, Work Experience will be able to play a much more valuable role than at present, and not only form the base for linking education with development and productivity, but, most important of all, help to create self-reliant, socially conscious young people needed to meet the challenge of tomorrow's world.

Work Experience and Community Service

BY:

B. Prabhavathy Rao
Principal
Jawahar Navodaya Vidyalaya
Sirpurkhagajnagar
Adilabad (A.P.)

The community is for education and education is for community. This is a dialectical process. The tribal world round the earth is the same. The education institutions have to break the barriers. We must be influenced by Maslows famous concept - Self-actualisation. We are here in the society to give and take and to search for balance of both.

School will not change unless the society changes and society will change if and when a changed school has helped develop a different type of being.

We have to identify the needs of the society-developing certain productivity for action. The needs identified in sample village adopted by us are as follows:

1. Education (Literacy)
2. Judicial assistance
3. Agriculture awareness
4. Health and sanitation
5. Conservation of national heritage
6. Conservation of nature
7. Women and child problems

8. Animal husbandry
9. Library mobilisation
10. Economic awareness
11. Banking consciousness
12. Superficial beliefs - needs scientific thinking.

The Target

1. Men and women illiterate
2. Children
3. Youth unemployed and drop-outs

The Sources

The following sources are tapped to stream the men and mater for the work:

1. Educational institutions
2. Govt. agencies
3. Voluntary sector (NSS, Rotary, Red Cross).

The community has to be coordinated to develop self efficien Hence the groups formed to register themselves as societies. The societies are in turn receiving funds from Banks, ITDA and DRDA. The industrial sector is providing know how. The production is marketed through cooperative societies.

Warming up the know how

The local industries can be appraised to stream line with th cottage industries the local artisans may be given extra advanced mechanism available for them. Skilled labourers should be invol in this process.

production evaluated so far by the operations of school in the Community

1. The villagers have learnt soil testing
2. Kitchen garden is developed
3. Tailoring is learnt
4. Computer literacy is extended for rural educated population.
5. Preparing nutritions food with low cost food materials like Java, Ragi.
6. Arranging the house
7. Purifying water
8. Using smokeless chulahs etc.
9. Making Papads, Phenyle.
10. Increasing agricultural production.

As the school has staged the activities of the govt. in the village. The following values are received. They became literate once the adult is made to understand better the society in which he lives and role he plays. He begins to question where is my place in all this? The result is the village attains total literacy. The health of the village is improved. They know how to solve the problem and who to approach for.

The children receive the following values:

1. Understand the functioning of the govt. institutions.
2. Sharing and helping child by adopting a child.
3. The role of the student for the society.

4. Awareness of the problems in the rural set up.
5. Efficient use of leisure time
6. Production is to be increased
7. The concept of economy is understood.

Navodayas as pace setting institutions have adopted the villag and govt. primary schools and are on the way of making them self sufficient.

<u>The constraints met in the task are</u>

1. The time is insufficient
2. There is no financial assistance
3. Poor response of the govt. agencies
4. The fear in tribes to welcome the idea.

If these constraints are removed intelligently this project of community service becomes a success. India will progress furthe

A Report on SUPW Experiences

By:

Mrs. S. Premaletha
Principal
Mahatma Montessori Matriculation School,
Madurai.

1. SUPW Experiences in Matriculation Schools - The Need

In the present educational set-up that prevails in most of the Matriculation Schools which operate under the stiff regulations stipulated by the respective management of the schools and on the narrow but staunch expecations of the parents, the need for introducing SUPW activities, into the otherwise rigid Matriculation School system which focuses primarily on the students 'scores on an unnecessary' extra-fitting.

I consider it as my duty to stress the need for introducing the work experiences in every matriculation school without disturbing the regular curriculum which aims for academic excellence and within the means and ways that are accessible to the management and school administrators.

In the existing system unfortunately knowledge for its own sake is perfectly sufficient. Here the stress is mainly on the high standards for all learners; rigid grading, promotions and academic competition. And vocational education has been viewed primarily as occupational training for students who do not fare

well in the academic curriculum. As a result, education becomes so narrow when it deals only with knowledge and skills; so incomplete when it ignores affective development--attitudes, values; so selfish when it makes the learner forgets about the society to which he/she belongs.

This state of affairs makes every responsible educationist to redesign and enrich the curriculum with a proper mix of both academic and work experiences which should be considered of co-equal importance.

2. SUPW Experience in Mahatma School

2.1 Methodology

Work Experience should be highly motivating and interesting & relevant to students lives. The students at no point of time should feel that it is another subject to be rote learnt; rather it should act as a catalyst that reawakens the students commitment to school and society and sparks a renewed interest in the academic skills.

The attitude of the students towards the Work Experience activities' is very much evident from their active involvement and zeal participation.

We have set aside all the saturdays and sundays for the various of activities and SUPW experiences, comprising Literacy Compaigns, Health Camps, Environmental Care activities, Value Camps, Workshops to name a few.

All these activities are so selected considering all the factors like 'whether the school needs trained resource persons' the activities require special materials, whether the camps will cost within the limits etc., The most important aspect of Teacher Training is also taken care of. Staff development programmes and orientation workshops are periodically organised to equip the teachers with the knowledge, skill and above all the attitude to carry out the activities in the project.

2.2 Activity and Content

Work Experience and Community Participation

Literacy Drive: Every week end the students organise literacy camps for both the children and the adults of the adopted village. We aim for total literacy in the village by 1992. Students arrange for the notebooks and writing materials to the participants of the literacy camps. Each one teach one concept brings in them the commitment towards the society and a perfect understanding of the life style of the villagers which results in an attitudinal change towards the less fortunate members of the society.

Care for Environment: A lot of work experiences have been effected through the environmental activities. Students have helped in transforming our 50 acre camp site, a rocky dry land into a green tranquil garden of about 20,000 trees, planted and being taken care by the students. Maintaining a nursery of 10,000 saplings, digging the pits for planting trees, laying out a landscape, clearing bushes are some

of the experiences that have made the participants to realise the hardships of manual labour and to imbibe in themselves the dignity of labour and to relate hand with head and heart.

Apart from the distant environment the students show their care for the immediate environment also. The Corporation of Madurai appreciating our concern for Nature, has earmarked a long strip of 80 feet road to be converted into a clean, green avenue flanked by trees on both the sides.

Students visit every house in our neighbourhood and make the inhabitants realise the importance of developing a clean and green city. They get their assistance by way of getting the water for the plants and soliciting their attention in rearing the saplings and protecting them from the dangers of the cattles and ignorants.

Character Building and Inculcation of Values through Work Experience Activities

Value Camp: Unfortunately moral values are disintegrating on all fronts. This is evident from the obvious lack of purpose and direction pervading todays youth resulting in unsatisfactory educational performance.

Conscious efforts must be made to impart to younger generation a value-oriented education. While efforts can be made to inject the dose of value into the entire educational stream the prime focus of attention would have to be the impressionable age group of 6-15 years. It is these formative years where a commitment to values and virtues can be implanted to reap a rich and composite

harvest of character and excellence. Hence we started experimenting the value camps where creative activities, group singing, group activities, social service, cultural programmes, Bhajan and Yoga are conducted with the help of resource persons. These activities channelise the bubbling energies of a child into a stream of peace when conducted properly with the values as basis.

A group of 60 students every week participates in a Value Camp which lasts for $1\frac{1}{2}$ days.

The work experience activities like making wall-hangers or paper-mats as decorative pieces bring about lot of participation from the students. They fathom the values that are required to make the article to be more beautiful - like the pattern, the arrangement and colour combinations and they develop in themselves the aesthetic feeling that helps them to maintain everything they have as more beautiful and pleasing.

A chaotic situation is provided with - where the entire room is in total disorder. The students are asked to set things right and they realise the value of orderliness.

Schedule of Activities in the Value Camps - A Model

Saturday	5.30 p.m.	- Arrival
	6.00 - 6.30	- Orientation and Prayer
	6.30 - 7.30	- Action songs
	7.30 - 8.30	- Dramatics
	8.30 - 9.00	- Community Dinner
	9.00 - 10.00	- Video show - critical analysis
	10.30 p.m.	- Bed

5.30 a.m.		- Wake up
6.00	- 7.00	- Yoga and Medication
7.00	- 8.00	- Environmental Activities
8.00	- 8.30	- Breakfast
8.30	- 9.30	- Art and Craft activities
9.30	- 10.30	- Communication Games
10.30	- 11.30	- Value Games
11.30	- 12.30	- Kit Skit - a creative activi
12.30	- 1.00	- Lunch
1.00	- 3.00	- SUPW activities
3.00	- 4.00	- Feed Back Session

Saturday workshops: Active participation of the students in all these activities is assured only when they find them motivating, interesting and relevant. For eg. Higher Secondary Schedule of activities on a particular Saturday.

The girls take responsibility of preparing some food items under the guidance of the Cookery Instructress. They decide on the menu and workout the cost and procure all the necessary ingredients All of them involve in these activities and prepare variety of dis for all the participants of the workshop. They sell the produces during lunch time.

In the afternoon they design greeting cards and create them with the assistance of the art and craft teachers. The produces of these sessions will be kept for sale on a special occasion when all the parents are invited for a fun fair.

Students find these activities very interesting and in the feedback sessions we could feel how much they have benefitted from the experience. For eg. the girls experience a lot of real life situations during these workshops where they are asked to arrange the table, arrangement of food simple decorations, cleaning the dishes, preparing variety of dishes following the recipes given by the Instructress etc.

Every week, this welcome break reawakens their general motivation level and sparks a renewed interest in the academic skills.

2.3 Economies of the Activities

No activity is attractive and encouraging unless it works out to be very economical and well within the financial limits of the management.

All the activities we have experimented so far, are found to be very cost effective as each activity is self-generative in nature.

Every year Rs. 6/- is collected as Charity Fund from each student. The money thus accrued will be utilised for the Literacy Drive Campaigns, health camps etc.

The doctor parents spare very generously the sample medicines to be prescribed for the poor villagers during the health camps.

The students pay a fee of Rs.8/- for the value camp with which the cost of conducting camp is met out.

The saplings donated to the school by the students on special occasions like their birthdays or such festivals, are used for various environmental activities.

3. Recommendations

The fees of loss in the time and resources in introducing the work experience activities in the curriculum which is the blocking hurdle for many schools in introducing the SUPW activities can be overcome only when they experience them. The recommendations and the report on activities we have presented here might interest the schools which are ready to be progressive in implementing SUPW activities their own ways and means without making any compromise any of their academic purposes.

The feed back we receive from the students and parents and the obvious attitudinal change we find in most of the students give us lot of encouragement to introduce more and more such activities which will certainly develop their 3 H's.

Importance of waste materials in Day to Day Life

By:

Y. Vasundhara Devi
Spl. Mpl. S.L.N. U.P. School
Narsapur-534275
Dist. W.G. (A.P.)

We come across used/condemned waste material in and around our houses, schools and offices in our daily life. Most of them we throw into a dust bin or in a junk yard. But by imaginative thinking and proper guidance, we can prepare with that waste material beautiful toys, attractive wall decorations, and many other things of beauty to beautifyour houses, schools and offices.

In these days of expansion of knowledge, it is necessary to inculcate interest and develop scientific knowledge by imaginative thinking amongst children right from the primary stage.

My work experience with no cost/low cost waste materials is herewith submitted with exhibits. I have guided and directed some of my school students and other children to prepare pretty and useful articles with waste material which have won numerous prizes, certificates of merit and appreciation in, District and State Science Fairs. The concept or theme of my project is that 'Nothing is Waste provided we can properly utilize it.

Introduction

There is nothing on earth to be called as waste material. All the waste material is useful in one way or the other. In the streets people gather waste paper, used materials and sell them recycling [illegible] to earn money. Like that we can also make children learn to make some articles of use, out of waste materials.

Aims

(a) Rationale behind construction of these exhibits are to make people or students self sufficient by self employing themselves and earn money by making toys and other decorative articles wit waste materials.

(b) The Scientific Principle Involved is to make use of waste material, imaginatively, scientifically and to conceive new combinations of ideas, while making toys and other domestic wall decorations with low-cost/no-cost waste materials.

(c) [illegible] used for making are used blades, plastic caps, Egg shells used thermocole packing materials, seeds, bird feathers, pieces of cloth, used bottles, wedding cards, plastic pieces, plaster of paris, sea shells etc.

(d) Making of exhibits: Decorative articles for hanging on walls, toys etc.

Brief and Concise Description

Wall Decorations

(a) With used blades: Take a small card board or masonite sheet, and paste a coloured velvet paper on it. Draw a sketch of a chariot or Shiv Linga on it and paste used and polished blades on it decorate them with coloured chips. Cover it with cellophene paper. Arrange a hook for hanging on the wall.

(b) With seeds: Collect some cucumber seeds, clean them with soap and water. Dry them in shade. Take a card-board sheet and paste a velvette or coloured paper. Trace a flower design sketch on it paste, cucumber seeds in the place of petals of the flower. Paste green plastic wire pieces in place of leaves and stems. Arrange a hook for hanging.

(c) With used wedding cards: Collect used wedding cards. Cover the printed matter with a piece of paper or cloth. Paste used 'Rakhis' in the centre or as a design and decorate them with coloured, chips, beads and small mirrors. Arrange a hook for hanging it on a wall.

(d) With pieces of cloth: Take a card board sheet and paste velvet coloured paper on it. Trace the design of different birds. Collect small pieces of cloth of different colours and varieties. Paste small pieces of cloth on the board as per the design on birds drawn on it. Arrange a hook for hanging.

(e) Wall decoration with sea-shells: Collect sea shells and clean them with soap water. Draw some flower design on a decorated card board sheet and paste shells as petals of the flower design. Cut green velvet paper into leaves and stems and paste them on the design drawn. The same wall decoration can be done with plastic caps discarded thermocole package pieces and other

(f) Bird pictures with Bird Feathers: Collect different coloured feathers of chicken and other birds. Clean and peel them and arrange them into small bunches. On a decorated card-board, trace figures of different birds and paste pieces of feathers according to the colour of the birds. Attach coloured beads as beak and eyes. Arrange a hook for a beautiful wall decoration.

(g) Plaster of Paris: Collect some plaster of paris. Mix it with water and pour it into small moulds of squares, circles and triangles. Remove them from the moulds after they become dry. Take a card board sheet, paste a coloured paper on it and paste plaster of paris pieces according to a design planned as a bunch of flowers, welcome board or greeting boards.

(h) Toys with used tooth paste plastic caps: Collect used tooth paste tube caps or small plastic bottle caps. Paste one on the other as a body, and place a plastic ball or marble as a head. Paste another cap over the ball head as a hat. Paint mouth and nose with sketch pen and attach black beads as eyes with gum. Arrange small sponge pieces as hands. Make musical

instruments, bats etc. with match sticks, small wood or with sponge and attach them to hands. Arrange the dolls on a wooden plank, resembling, cricket field, tennis court or musical band group etc. and decorate them.

(i) X-mas tree in a bottle: Collect used clear white bottle. Tie a thread on top of a wooden pencil and apply paste to the bottom of the pencil and fix it in the centre of the bottom of the bottle from the neck. Make a hook of plastic leave, flowers, beads, and small plastic animals and send them into the bottle through thread and neck of the bottle into the base. After putting different varieties of hooks through the neck of the bottle upto the top remove the thread and put on the cap and seal it. This way one can place number of articles into a bottle.

(j) Door hangers with plastic spoons: Collect used plastic spoons from milk powder tins or tonic bottles. Make small hole on the handle tip. Hang them one after the other with plastic thread into an arch and assemble them to a piece of cloth and hang it as door curtain. Door decoration curtain can be made with used plastic dises and plastic distilled water ampules and other waste material.

Conclusion

These examples are only a fraction of useful things we can make out of waste materials. We can also prepare many other

beautiful things with waste materials like Ice cream sticks, bamboo plates, brooms sticks, plastic granules, nut shells, package material etc.

Applications

1. To earn and self employ by selling the articles.
2. To decorate houses by house wives and students with no cost/ low cost waste material.
3. To put into proper use, all the waste material thrown around their houses, schools and offices.

Vocationalization for All - Linking Community with Work Experience

By:
S. C. Bhargava
Regional College of Education
Ajmer-305004

It was always been accepted that the progress of a nation always depends upon its productive capacity. The larger number of the people involved in the productive professions, the richer that nation will be. Riches of a society depend upon the fact how much it utilizes his resources and gains the wealth from it. Thus it is prime duty of education to increase the productive manpower in the country. The prevailing system of education does not help in any way, rather it is producing wealth consuming citizens who want unproductive employment. In 1937 Mahatma Gandhi devised a scheme in which teaching-learning was to centre around craft, where in he gave the idea of work experience i.e. learning by doing.

Concept of Work Experience

The Education Commission (1964-66) has defined work experience as participation in productive work in school, in home, in workshop or on the farm, in the factory or in any other productive situation. In this way, all good and purposeful education includes work-experience in its scope. Any activity, experience, direct or indirect, which involves productive aspect of our life in its social and economic environment, can be called work experience.

According to Patel Committee (1977) SUPW/WE in purposeful, meaningful, manual work resulting in either goods or services which are useful to the community. They are related to the needs of the child and community to prove more meaningful to the learner. It is not to be performed mechanically, but must include planning, analysis and detailed preparation at every stage, so that it is educational in essence.

SUPW/WE should not be confined to four walls of the schools. Nor is the teacher solemly responsible for organising the work. Local community and the governmental agencies should be actively associated. The help of such organisation like village industries commission, social organisation, local industries should be secured.

Objective of linking work Experience with the Community

1. To prepare the pupils to practise and perform manual work individually and collectively in the social context.

2. To acquaint children with the world of work and service to the community and develop in them a sense of respect for manual workers.

3. To develop a desire to be useful members of society and contribute their best to the common good. .

4. To inculcate positive atttitudes of team-work and socially desirable values like self-reliance, dignity of labour, tolerance, cooperation, sympathy and helpfulness.

5. To develop we feeling which acts as a cohesive force in linking work experience activities with society. Relation between work experience activities and community.

The activities of Work Experience and the community are mutually interdependent on each other for their growth. Work experience activities are for the community and community is for the Work Experience activities. The existence of manual work depends upon the existence of the community. Skill work is brought into existence by the community for its own development and betterment. The community fixes up certain aims and objectives. In order to realise those objectives Work Experience activities are organised.

Working together is an idealised epitome of social life. It is a miniature form of the community linking. The mental and emotional factors found in the community at large as reflected in the miniature community of the small group where they work in the integrate approach. Work Experience activities can not exist without the community because it draws its population from it. Like wise a community cannot do without productive work. Community ideals are constantly influencing the manual work and work experience activities in its turn is moulding the community by polishing its members into enlightened citizens.

Need and Importance of Strengthening Work Experience Activities and Community Relationship

Work Experience activities cannot be imagined in the absence of community. The following points highlight the need and importance

of strengthening work experience and community relationship.

1. Increasing Problems

In the modern age problems of work experience are multiplying. The activities is increasing due to increase of requirement of the community i.e. indiscipline and disregard for manual work and improper method for doing work cause discontentment and restlessness. To solve these problems, it is essential to provide physical facilities for work experience activities.

2. Realisation of Educational Objectives

If we want to achieve the objectives of education help one children in their physical, intellectual, emotional, social, aesthetic, moral and all-round developments it is essential to strengthen work experience activities and community relationship because student lives in the community and is influenced by its ideals, values and traditions.

3. Democratic Living

India is a democratic country. We are to acquaint community people with democratic value, dignity of labour and prepare them for manual work for democratic living. For discharging this responsibility it is essential to strengthen work experience activities and community relationship.

4. Maximum development and Social Progress

The community has created many skill oriented activities to help the people to make maximum development and to contribute towards social progress. For achieving this objective it is essential to

strengthen the relationship between work education and community. This need of community cannot be fulfilled until the relations between the world of work and the services to the community are strengthened.

5. Scientific and Technological Progress

Scientific and technological progress has changed the mode of thinking, living and behaviour we are to depend on each other. Scientific and technological achievements have brought us closer. As a result of these achievement, many changes have taken place in the community. Hence work education or manual work cannot be divorced from the community.

If we continue the present system of working the isolated compartments, the manual work not enriching the community, the community not supporting the work oriented activities in the school, not only will it defeat our real educational objectives, but whatever education we provide, will be stale and anaemic.

Aim of linking work experience with community:

1. To acquaint the students with their community.
2. To impart knowledge of ideals and values of community life.
3. To plan work experience activities according to needs of the students and community.
4. To provide opportunities for securing co-operation of the community.

5. To utilize the resources of the community for happy and prosperous life.

6. To help the students and the community in promoting the vocational efficiency.

7. To develop the love of community towards the work experience activities of the school.

Guiding principles for developing relationship between work activities of School and the Community

The following guiding principles should be kept in mind for developing relationship between work activities of school and the community.

1. Willingness to change the pattern

The work experience activities of school should always be willing to change its pattern in order to be more useful to the community. In other words the work activities of school must be prepared to adopt itself to the life of the community. There are various agencies with in a community which provide different types of services and the effort of work activities of the school should be to work in harmony with them.

2. Service of all

The work activities of school within a community ought to serve all the people alike. The school is not to look after only children but also adolescence and adults. Thus the programme developed by a school within a community should cover all sections of the population and provide education through recreation also.

3. Mass Media

The school should utilise the mass media of communication of work education purposes and play an important role in making the life of community a happy one.

4. School as Centre of Community Activities

The school building, furniture, equipment, human resources etc. are the public property. They should be placed at the disposal of the community after the school hours. The school should remain open for community activities. The school library should remain open for the public film shows, exhibition and WE mela should be organise to provide entertainment and information of people belonging to the community.

5. Parents Day

At least once a year parents of all the students may be invited to the school to see the various activities of students related to Work Experience.

6. School as Guidance Bureau for Community

It should be a leading centre for guidance purposes. People should know about the loaning system from the banks, functioning of bank, post office distribution of seeds etc. For some common problems of villages, remedies may be suggested. All this bound to strengthen the relationship of school and the community.

7. Social Service programme

Social service programme of the following nature may be organised under the work education programme of the school.

(i) Cleaning the lanes, streets and home of locality.

(ii) Cleaning the drains and wells.

(iii) Organising relief services at the time of floods, epidemics, earth quake.

(iv) Organising health squads.

(v) Helping the villages in using simple and modern method of farming, cooking, washing clothes, cleaning utensils. Beautification of the villages, planting trees, digging wells, repair of streets and roads, launching literacy compaign, donating blood in cases of emergency.

Such social activities will bring about mutual adjustment and cooperation between the school and community.

8. Vocational and Industrial Progress

Work experience activities of the school influence the vocational and industrial efficiency of the community vocational pursuits of a community are practised in school and the feed-back promotes community welfare and prosperity. More and more people becomes self-reliant and economically well off because of school education and training in crafts or modern techniques of production.

Thus we find that the work education of the school fulfills the needs of the community, solves its problems, preserves it culture, raises its standard of living, co-operates in the industrial

the economic growth and maintains its integrity and continuity. The school this by reforming the community to suit the changed circumstances and by developing dynamic citizens devoted to self-development and welfare of the community.

References

1. Board of Secondary Education Rajasthan: A Handbook on Socially Useful Productive Work 1984.

2. Buch, M.B., Patel, P.M., Towards Work Centred Education, Ahmedabad, Gujarat Vidyapeeth, 1979.

3. Bhargava & Bhatnagar, Socially Useful Productive Work and Community Services, Alka Publications, 1991.

4. Mehta, D.D., Working With Community, Vijaya Publications, Ludhiana.

5. Ministry of Education: Learning to Do: Towards a Learning and Working Society New Delhi, Ministry of Education and Social Welfare, 1979.

6. Ministry of Human Resource Development (Department of Education)- District Institutes of Education and Training, Guidelines, New Delhi, 1989.

7. Report of the National Review Seminar on Work Experience - Learning by Doing, NCERT-1990.

8. Work Experience in School Education - Guidelines-NCERT, 1987.

Inouguration of Seminar on "Vocationalization for All" on 10th December, 1991 at Thiruvananthapuram by Governor of Kerala, H.E. Shri [illegible] Kochaiya.

I am extremely happy to be here this morning to inaugurate the national seminar organised under the joint auspices of the NCERT and Mitr-niketan. The general theme of the seminar, I am told, is "Vocationalization for all - Concept and Implementation" a topic of current national significance. It is heartening to note that the objectives of the seminar are: to review the progress of the work experience programme in the States, to share this experience among the participating States and Universities, and to exchange ideas and to discuss contemporary issues for formulating new approaches for the future.

The idea of vocationalization is as old as Gandhiji's concept of basic education. Gandhiji's theme of education had been to give top priority to the all-round integrated education of the children through 'creative work' and production activities to instil in them the spirit of self-reliance and self-help. Gandhiji believed that emphasis on the principle of spending every minute of one's life is the best education for citizenship.

The Kothari Commission also later laid emphasis on introducing vocational courses at the secondary school level. But the implementation did not come up to our expectations. Experts say that the failure of vocational education can be attributed to the haphazard manner in which the scheme was introduced and implemented.

Due to the lack of proper technical facilities and laboratories for students, it has practically ended up in imparting theoretical training. Poor planning and greater emphasis on liberal education has also affected the implementation of the programme. In fact so long as education is viewed as an instrument of upward mobility and so long as the educational system inculcates aversion for manual work, it is unlikely to attract students.

Some educationists think that the whole structure of education can be reformed provided a University Degree is not insisted upon as a qualification for appointment to any job. If this point of view is accepted the next step will be to make secondary education, self-contained and adequate for majority of jobs. The ten years of secondary education should be packed with meaningful learning and training for work. Broadly speaking the objective should be education for living. The secondary course should also provide for the optional study of a variety of subjects, many of them work-oriented, so that on completion of the course, a pupil may straight away take up apprenticeship for a job.

Whatever may be the outcome of experiments the fact remains that the burden of higher education has fallen largely on public exchequer. Our Universities undoubtedly are over producing graduates without taking into account the general trends regarding man power needs and employment opportunities. We have to adopt innovative strategies to make higher education cost effective. Our educational

planners need to take a fresh look at the existing system of education which is our own creation. Most of the present-day problems can be solved only by re-structing it and making it responsive to the needs of society.

I am happy that the seminar is held at Mitraniketan where endeavour has always been made to rectify the defects in the formal system of education in vogue which creates largely a frustrated group of youth chasing white collar jobs. I am told that through the process of integrating different aspects of life, work and personality, the institution aims at development of the individual as a self-reliant, committed socially useful citizen.

I hope the experts and field workers from various parts of the country who have assembled here will make a thorough study of the problems of vocationalization and suggest positive practicable measures to solve them. This is all the more important in the present context when the process of education has deteriorated into an exercise in futility. Most of the problems can be solved through vocationalization, if introduced and implemented with earnestness, missionary zeal and utmost dedication. I hope this seminar will have the way for instilling courage and confidence in the delegates to envisage a thorough overhauling of the system of education by introducing vocationalization at appropriate stage. I am happy to inaugurate this seminar with a feeling of genuine pride.

Another duty I have to perform today is to release the book written by a young, talented and enthusiastic scientist Shri K.K. Vasu. This book which blends stories with a mixture of scientific truths, reveals a vision full of love and compassion and reflects the joys and sorrows of living. The stories in this attractive publication excite the imagination of the young minds, instil in them the spirit of enquiry and optimism, help them understand the dignity of labour and above all transform them into better human beings.

It is only in the fitness of things that the book which is quite attractive in form and content and which has bagged the NCERT national award is released in this seminar. I am confident that this book will be a useful guide to make the children conscious of the work-oriented technical education. Let there be more and more publications like this for the benefit of our budding citizens who represent the hopes and aspirations of this great country.

'JAI HIND'

Status Report of Work Experience in Andhra Pradesh

By:
P. Sudershan Rao
Professor & Head
Vocationalization Department
N.C.E.R.T.
Hyderabad-500001

Introduction

In Andhra Pradesh craft as a subject was introduced in all the schools prior to the Ishwarbhai Patel Committee Report in the year 1977. Different activities were organised based on the infrastructural facilities available in schools. One craft teacher for each high school was also sanctioned. The Government of Andhra Pradesh accepted the recommendations of the Review Committee and introduced Socially Useful Productive work in all the schools in phases from 1979-80. In the first phase of implementation, teachers' training programme was organised in 1978-79. Subsequently detailed syllabus was prepared and introduced in schools in a phased manner viz: Classes I and II in 1979-80, III to V in 1980-81, VI and VII in 1981-82 and VIII in 1982-83. With a view to extending the programme to all the schools up to the X standard through an appropriate and realistic plan, the Government of Andhra Pradesh constituted a committee under the chairmanship of Shri V.R. Reddy on 5th March, 1983. The committee consisted of experts from different fields including a nominee from the N.C.E.R.T. The committee submitted its report to the Government in 1983-84 which contains suggestions

for the implementation of the programme from Classes I to X. Further action on the recommendations of the committee could not be taken because of the change in Government. The then Government wanted to introduce vocational education at high school stage. Accordingly, steps were taken for introduction of vocational education from classes VIII to X. This was done during 1984-85 for class VIII, during 1985-86 for Class IX and during 1986-87 for class X.

The list of courses introduced under vocational education are as follows:

1. Knitting, garment making, laundry and darning.
2. House wiring and repair of domestic electrical appliances.
3. Radio, transistor receiver and TV-repair and servicing.
4. Farm machinery repair and servicing and general mechanism.
5. Composing, printing and book-binding.
6. First-aid, general medicare, nutrition and medical store management.
7. Poultry
8. Pisciculture
9. Horticulture including floryculture.
10. Sericulture
11. Wood Work and cabinet making (Carpentry)
12. Computer Techniques
13. Secretarial Practices
14. Plumbing
15. Refrigeration and Air conditioning.

These vocational courses were introduced in 345 high schools in place of Work Experience/SUPW, offering 2 or 3 vocational courses in each school. 20 per cent of the time was allotted for these courses. During the year 1987-88 the Government has shifted the concept of the Vocational Education to the Manda Vocational Education Centres in order to achieve maximum return on the investment being considered. Mandal being a growth centre, would be more advantageously located and several other schools and colleges and make effective use of the facility being provided. 48 such Mandal workshops are being established in the entire State and in a phased manner all the 1104 Mandals will be provided with such centres. To all the vocational schools and the Mandal Vocational Centres the infrastructural facilities like providing necessary equipment, raw material and instructors pertaining to each course and building component has been provided at each Mandal Vocational Education Centre. The necessary Textbooks in Telugu language have been prepared and supplied to all vocational schools and centres through the textbooks press centres at District Headquarters.

In all other High schools and primary and upper primary schools SUPW/Work Experience programme has been continued the activities undertaken under this programme are as follows:

1. Preparation of phenyl and detergent power.
2. Preparation of paper covers and greeting cards.
3. Preparation of face cream, vaseline and tooth powder.

4. Clay models and making dolls.
5. Preparation of chalk pieces and fountain pen ink.
6. Book binding
7. Preparation of squashes and jams
8. Running school canteen
9. Stitching and knitting work.

Orientation Programmes

About 1000 teachers were given orientation in the SUPW at the rate of about 50 teachers per district. The Teacher Educators of TTIs and B.Ed. colleges were also given orientation in SUPW. During 1990-91, 21 Headmasters were given orientation programme through NCERT.

Pre-Service Training Course

Almost all the universities in the state have introduced SUPW, Community Service, NSS in the pre-service training curriculum and some weightage to these activities is also given in internal assessment.

Instructional Material

A booklet giving details of the concept, objectives, activities etc. of Socially Useful Productive Work was printed and supplied to all the teachers and teacher educators in the State.

National Policy on education-1986

Based on the programme envisaged in NPE-1986 and the detailed guidelines prepared by the NCERT, the Government of Andhra Pradesh has decided to introduce work experience programme in all classes from I to X (except in the schools and classes where vocational education was introduced) in a phased manner starting from the academic year 1990-91. A detailed curriculum for work Experience for classes I to X has been prepared based on the NCERT guidelines. It is also envisaged to prepare teachers' handbooks for classes I to X.

State Report - Jammu & Kashmir

By:
Gulzar Hussain Sarwar
R.O., S.I.E.
Srinagar (J&K)-190001

Statistical data/Information

Year	No. of schools in which Work Experience Programme was introduced
1974-75	6
1975-76	10
1976-77	42
1977-78	92
1978-79	249
1979-80	253
Total	652

Number of Teachers

A regular part time teacher in each school was engaged at the consolidated remuneration of Rs.400/-.per month.

List of WE activities

Agriculture
Kitchen gardening
Laying of flowerbeds
Cookery

Knitting

Embroidery

Weaving

Carpet-making

Wood-work/Wood carving

Model making

Fruit presevation

Weaving

Chalk-making

Ink-making

Cutting and Tailoring

Papier mache

Mushroom cultivation

Chillies cultivation

Saffron growing

Bee-Keeping

Envelop making

Potato cultivation

Crewel work

Social forestry

Steno-typing

Soap making

Poultry farming

Gabba making

Book-binding.

Candle making

Towel-stand making

Furniture making

Photography

Jam and Pickle making

Repair of electrical gadgets and leather work

compulsory activities related to sanitation, health education and other related fields.

No. of hours allotted to WE activity per week

One period of 30-35 minutes was allotted to each class per day (Classes I to X).

Details of evaluation procedure

Board has suggested evaluation on seven point scale. The success or the division of the student does not depend on his performance in the WE activity.

Institutional Infrastructural Facilities

Upto Rs.8000/- was allotted to each school for the purchase of equipment etc. and annual grant from Rs.200/- to Rs.2000/- were given for purchase of raw materials.

Management Structure.

There is no administrative structure to oversee specifically the WE programme.

State Report of Work Experience in Kerala Implementation during 1990-91

By:
M.K. Thirumeni
Special Officer
WE programme
SIE, Trivandrum
Kerala

Introduction

In the case of implementation, the state ... mad start with 173 high schools and 176 upper primary sch special programmes are going on in 4098 lower primar primary schools and 2002 high schools. In the remai primary and upper primary schools a common five poin has been implemented. They are:

1. Cleaning and sanitation work
2. Beautification of the school building and
3. Agriculture - Kitchen gardening and pot cu
4. Preparation of teaching aids
5. ... work using clay, paper, card-board e

Considering the cost of implementation it is de introduce the programme in a phased manner.

The aim of the programme are:

1. to link education with life,
2. to link subjects with work, and

Thus it is attempted to integrate work and education at all levels. The fulfilment of these aims is carried out from lower classes to higher classes. In the lower stage the first two aims find prominence and the third one at the high school stage.

In the primary stage practice has been given in multi trades and multi processes. Special case has been taken in utilising locally available raw materials and waste materials. The use of tools and skills imparted are employed in activities that will help the pupils in learning subjects and the teachers can identify "Work Experience" in various topics of the subject. By employing work experience as a teaching method work can be integrated with education and get rooted in the curriculum of education.

In the high school stage the pupils are given practice in one trade with a view to give a vocational bias, with a forward look technologically.

Seminars for headmasters, teachers and parents were held to make them understand the concept of Work Experience programme. Series of training courses were also conducted for effective implementation. One of the serious situation we are facing the transfers of trained teachers and abolishing the post of craft teachers. To face this situation training in specific areas were given to general teachers. The success of the implementation depends on the presence of responsible work experience teacher in each school.

Activities and Implementation

There is specific syllabus for work Experience programme from standard [illegible] in addition to this guide books with illustration were also developed. [illegible] freedom has been given to the teachers to add more activity based on the importance of the locality. Engineering scheme has been implemented in 115 upper primary schools and 10 high schools.

There is a team of Work Experience Officers for the follow up action.

Socially Useful Productive Work

In addition to the work experience activities SUPW programme has been implemented in the state as Earn While you Learn Programme. It is not a compulsory item but is aimed to create a productive situation within the school. The production is earned out out-of-school hours. Equipments and Rolling Capital were provided by the Department to 2002 high schools and 365 upper primary schools. Out of the 30 productive items, five items are supplied to Education Department and Stationery Department. The other products are sold out through school co-operative societies. No extension of the programme was carried out during the year. More concentration was given for strengthing the existing programme in schools. The profit gained from the production is distributed among the participating students and guiding teachers. @ Rs.75% , 20% and 5%.

As done last year Government has given an order for the supply of writing chalk, Duster, Skipping rope and pin-up-board for the implementation of II phase of the Operation Black Board Scheme.

Work Experience Seminar, Exhibition and On the Spot Competition

Every year we are conducting work experience seminar, exhibitions and on-the-spot competition at Sub-District Level, Educational District Level and State level. Students from standard I to X are eligible for the competiton. Competitions were conducted in 43 areas under exhibition and 45 areas under on-the-spot competition. The state level winners in on-the-spot competition are eligible for grade marks in the S.S.L.C. examination, cash awards and certificates. Till 1990-91 the benefit of grace marks was given to the first prize winners only. Now the benefit is extended to the second and third prize winners also.

Pre-Vocational Courses

Eleven pre-vocational subjects have been introduced in standard IX and X as a compulsory subject in all the high schools of the state. Syllabus and textbooks were also prepared and distributed to the schools. During the year depth courses for a duration of 10 days was also conducted in Agriculture and Technical Drawing. 870 high school assistants in mathematics and 810 biology teachers were attended the course. Even though government have accorded sanction to introduce 20 more subject areas, it was not carried out due to shortage of funds.

Regional Community Training Centres for SUPW

Government have accepted the proposal of starting Regional Community training centres in the state.

The aim of the centre is to improve the skills of students and the teachers. They are free to manipulate with the equipments and materials available at the centre related to all the SUPW areas implemented in the state. There will be skilled technical personnels for guiding them.

Moreover it is intended to give facility to the community to understand the modern techniques and production process of items in which they are interested. Demonstration classes in the villages and production of leaflets are the other areas to be looked into. The centre should help the community in starting home units and to guide them in selling the products profitably

The educational institutions are benefitted in achieving its goals by the community. In turn the community have to be benefited in one way or other by these Educational Institutions. This interaction will give better results.

Status Report of the Work Experience Programme in Madhya Pradesh

By,

A.B. Dube
Dy. Director
DPI Office
Bhopal (M.P.)

1. Name of the State — Madhya Pradesh

2. Statistical Data/Information

2.1 Number of Institution - (1990-91)

Primary	Middle	High School	Higher Secondary
68649	14277	1770	2278

2.2 Number of Students: Classwise, Sexwise.

Class	Boys	Girls	Total
I	1181685	851103	2032788
II	993325	712114	1705439
III	973014	693490	1666504
IV	950424	552456	1502880
V	843895	413762	1257657
VI	737979	369555	1107534
VII	541457	306404	847861
VIII	538769	279175	817944
IX	316620	107484	424104
X	279855	85759	365614
XI	184149	48988	233137
XII	70708	35072	105780

2.3 Number of Teachers

Subject teachers who teach WE and also such teachers (viz. craft teachers) who devote their time mainly for WE programme.

Primary	Middle	High School	Higher Secondary
137815	79863	20796	33997

There is no separate post of craft teacher in primary and middle schools. Every teacher in these schools also teaches the craft. There is a component of craft in which every teacher is trained in the theory and practice during teachers training programme viz., B.T.I. and B.Ed.

However there are two thousand two hundred forty eight identical post of craft teachers in secondary schools, equivalent to the cadre of upper division teacher. In most of the secondary schools the craft being taught are in the areas of diversified courses being taught in the schools, e.g. embroiedery, bakery, tailoring in home science based courses. Gardening, vegitable production etc. in agriculture based courses. Photography and drawing in science based courses.

2.3 Data regarding orientation and training of teachers

(a) National Level

(1) Regional orientation programme for key persons in SUPW and community work held at Regional College of Education Bhopal from 29.1.81 to 3.2.81. In which the following three guidelines have been developed by the Department of Vocationalization of Education, NCERT, New Delhi for implementing WE programme.

(i) Guidelines for supervisors/Directors of Education/ Examination Boards.

(ii) Guidelines for SCERT/College of Education experts.

(iii) Guidelines for Principals/Headmasters

(iv) Guidelines for artisans/voluntary organizations.

(2) National workshop for implementing Work Experience programme held at SISE Jabbalpur, M.P. from 8.9.87 to 12.9.87.

(b) SCERT Level

State level workshop for preparing requirement of infrastructural facilities for different crafts at secondary level held at B.T.I. Sehore in 1988.

(c) PMOST Level

Year	No. of Teachers Training		
	Primary	Secondary	Total
1986	14292	17090	31382
1987	12425	14201	26626
1988	13977	14226	28203
1989	18848	7684	26532
1989	141171 (O.B. Teachers)	-	14171

2.4 List of WE activities

(a) Primary: Spinning, Gardening, Earth work, Toy making, Card-board or paper work, Bamboo or Cane work, Tailoring (3 to 5 classes), Drawing.

Note: A student is to offer any one of the crafts).

(b) Middle: One from group 1 or one from group 2.

(1) Sangeet, Chitrakala.

(2) Knitting and Weaving, Gardening, Wood work, Tailoring and Embroidering, Leather work, Agriculture, Home management.

(c) High School

Group (A): Any of the activities:

(i) Food management, cooking and presentation.

(ii) Wood work

(iii) Decorative bamboo work

(iv) Ornamental sheet making

(v) Artistic leather work

(vi) Paper craft and paper mache

(vii) Clay modelling

(viii) Tailoring

(ix) Embroidery

(x) Commercial and Professional Art

(xi) Photography

(xii) Tie and Dye, Dyeing and

(xiii) Music

(xiv) Creative dance

(xv) Toy making

Group B: Any one of the following SUPW activities:

(1) Health and Hygiene

(i) Cultivation of medicinal plants

(ii) Para medical services

(iii) Nursing and First Aid

(2) Food and Agriculture

(i) Crop cultivation

(ii) Gardening

(iii) Milk production

(iv) Poultry farming

(v) Bekery

(vi) Cultivation of spices

Group C:

(3) Shelter

(i) Electrical gadgets

(ii) Sheet-metal work and spray painting

(iii) Wax-modeling

(iv) Chalk making

(v) Wood work

(vi) Electronics

(vii) Bamboo work

(viii) House hold chemicals

(ix) Repair of house hold gadgets.

(4) Clothing

(i) Spinning and weaving

(ii) Mending of cloths

(iii) Garment making

(iv) [illegible] making

(5) Cultural and recreational Activities

(i) Dyeing and printing

(ii) Block printing

(iii) Engineering drawing

(iv) Ice box making

(v) Hand[illegible] film equipment

(vi) Computer science

Higher Secondary

Nursery, Kitchen gardening, Food preservation, Poultry keeping, Preparation of [illegible] and [illegible]fts, Plumbing, Preliminary surveying, Commercial or Agricultural Sculpture, Photography, Type-writing (English [illegible]), Book keeping.

The work experience activities is compulsory for every students at every stage of education i.e. primary, middle, high school and higher secondary.

2.5 No. of hours allotted to WE activity per week and total teaching hours per week, gradewise.

Primary Stage: (I to V) $\frac{1}{8}$ of the total time allotted for teaching i.e. 4 (Four) periods in a week.

Middle Stage (VI to VIII): Same as primary stage.

High School (IX & X): Two periods per week.

Higher Secondary Stage (XI and XII): Two periods per week.

2.6 No. of workbooks/reference books developed

Special issue of 'PARIKSHAK' on Work Experience published by Board of Secondary Education, M.P. in October, 1977.

3. Details of Evaluation Procedure

The evaluation of WE programme is internal. The assessment is done at primary level on the basis of practical performance of the students and same in middle level. At high school stage 50 marks are allocated for theory, 50 marks for artistic activity (practical) and 50 marks for SUPW practical work. At higher secondary stage evaluation is done continuously. The school maintains a cumulative record of each student which is open to inspection by the authorities of the board and of the school concerned. The students offering vocational training also have the facility to appear at an examination specially conducted for the purpose and on passing it awarded a certificate of proficiency in the trade. The students at primary, middle, and high school stage are also assessed on the basis of continuous evaluation.

4. Institutional Infrastructural facilities

The institutions select the activity according to the available local resources and seek the co-operation of the local physical and human resources. However hand tools and material not requiring heavy investment may be provided within the available resources.

5. Response of Students to WE Programme

The students are interested in practical, productive, creative and useful activities. They are interested in particular to such activities which are useful productive and local in nature.

6. How the WE activities are coordinated at the institution level?

(i) The schools utilise the available institutional resources-man and material.

(ii) Use of available local material and resources.

(iii) Utilizing local artisans, craftsman and experts available and within the reach of the school.

7. Achievements/Success stories in the field of work Experience

(i) Craft production projects are undertaken in some schools [illegible] operations seed manures are provided by public and net return are given to school.

(ii) Sharing the cost and produce by public and school.

(iii) Investment in production by school development committee.

(iv) Organising parents day and site exhibition for goods like pillow covers, table cloth etc. specially in girls school.

8. Management Structure - the agencies involved in the state viz. Directorate and Board and other agencies - their role and functions.

(i) Directorate - Establishment, Budget, Supervisors and Control at state level.

(ii) Joint Director at Division level.

(iii) Dy. Director at District level.

(iv) B.E.O. at block level.

(v) SCERT, syllabus of primary and middle stage, training, textbook developed, teachers guide book, orientation of teachers at state level.

(vi) DIET at district level.

(vii) Board of Secondary Education - Syllabus and examination at secondary level (High & Higher Secondary).

(viii) M.P. textbook Corporation - Production, printing and distribution of textbooks and teachers guide, workbook etc.

9. Is the state having Earn while you learn scheme?
if yes, please give the details.

The state is successfully implementing "EARN WHILE YOU LEARN" scheme since 1978 todate. The details of the scheme, its extent, the various productive activities and the achievements there in are enclosed.

10. Details of innovative projects, if any.

Attempt is being made to make the evaluation of craft an item of External Examination at Board level, so as to make its teaching and practice more educative and productive.

The Status Report of the Work Experience Programme in the State of Manipur

By:

Dr. (Mrs.) Neeru Saluja
Prof. & Head
DVE, SCERT
Manipur

Work Experience or Socially Useful Productive Work is given due importance in the state of Manipur. It has been made an integral part of general education and is one of the compulsory subjects.

Statistical Information

The state having 8 districts, is geographically divided into two regions - Valley and Hill.

The number of institutions at different levels of education in 1990-91 are as following:

Level of Education	Valley	Hill	Total
Primary Level (I-V)	1511	1710	3221
Middle Level (VI-VIII)	302	391	693
Secondary/High School Level (IX-X)	252	138	400
Higher Secondary Level (XI-XII)	25	5	30
Total	2100	2254	4344

These are the institutions which are either run by the State Government or are Government Aided or are recognised by the State Government.

The enrolment of students at different levels of education and sex-wise enrolment in the year 1990-91 is as following:

Level of Education	Boys	Girls	Total
Primary (I-V) with Pre-Primary	1,43,850	1,21,320	2,65,170
Middle (VI-VIII)	42,340	36,360	78,700
Secondary/High School Level (IX-X)	26,873	19,827	46,700
Higher Secondary Level (XI-XII)	2,750	1,160	3,910

Class-wise allotment of periods per week, periods per year, marks (both maximum and minimum) and percentage of time allotted.

Class	Periods per week	Periods per year	Marks allotted	Pass marks	% of time allotted
I	3	100	100	30	12.50
II	2	66	100	30	8.35
III	3	100	100	30	10
IV	3	100	100	30	10
V	3	100	100	30	10
VI	3	100	100	30	8,35
VII	3	100	100	30	8,35
VIII	3	100	100	30	8.35

Duration of a period-45 minutes.

WE/SUPW Activities

Different activities have been identified and implemented as SUPW activities in different stages of education. Till the middle level of education, definite weightage is allotted to the two components of Work Experience i.e. Essential Activities and Elective Programmes. However, these two components of WE form an integral part of SUPW curriculum. At the High School level there is a pre-vocational focus and the students can opt for the elective programmes designed by the Board of Secondary Education.

Primary Stage (I-V)

At this stage of education emphasis is laid on the development of good health, environmental sanitation and creativity and beautification practices through WE activities.

The activities in which students at the primary level are taking part are listed below:

1. Practice of hygiene principles with regard to body, belongings, class-room school compound and home.
2. Learning of diseases and their preventive measures.
3. Learn about the different types of food required for a healthy body.
4. Use of tools and materials - use of tools for creative activities, tools for cleaning environment, clothes and body and simple gardening tools.

5. Preparation of creative, self-expressional and useful objects for beautification and decoration of home and school by using locally available materials and waste products (paper, cardboard, cloth, threads, mud,/used bulbs, egg-skills, sugar-cane waste etc.)

6. Learn about different types of houses and living conditions of people.

7. Learning the scientific method of growing vegetables and simple cooking methods.

8. Recognising the different costumes of the different states of India.

9. Learning about different clothes required by the body and their maintenance and care.

10. Learning about the junctions and services rendered by the various service centres and people of the community - post-office, railway station, bus-stop, health centres, etc.

11. Involvement in different cultural activities and participation in national and local festivals and school functions.

12. Developing an interest towards the welfare of the people.

Middle Stage (VI-VIII)

The aim of Work/Study at middle level of education is to instil the dignity of productive labour into the student with a view to changing his attitude towards productive labour and towards working people who produce and nourish the society. The aim is also to discover the aptitude of the student for certain kind of work and to nurture his ability.

The emphasis is on production of socially useful materials bringing learning closer to work. The activities implemented at the middle classes are:

1. Making of simple handicrafts using various methods and skills (knitting of socks and gloves, articles embroidered with cross-stitch, crepe-paper flowers, simple jute carpet manufacturing etc.)
2. Maintenance of school building and beautification of school.
3. Visit to different construction sites and gathering information on materials necessary for construction of pucca houses, for making doors and windows.
4. Development of nursery and cultivation and care of plants.
5. Learning the constituents of foods and their importance to the body.
6. Learning simple techniques of food preservation.
7. Tailoring of simple garments and the care and storage of clothes.

8. Participation in community service programmes.
9. Involvement of the students in the functions of the school and society.
10. Learning about First-Aid.

Secondary/High School Stage (IX-X)

The concept of WE is extended to the High School Stage of education. The following activities have been identified.

1. Clothing and food
2. Fish culture in ponds
3. Manipuri Dance
4. Bee-keeping
5. Music

Evaluation

There is a continuous evaluation process for the WE/SUPW activity in all the classes. A scheme of evaluation of SUPW activities has been suggested for the teachers. 60% weightage is given to the projects or practical work, 30% weightage to the attitude towards the work and 10% weightage to the overall performance which includes the inter-relation of the subject study with work and preparation for professional or vocational studies.

A self evaluation report is also expected to be maintained by the student. This however, is not being done seriously.

Earn while you work

Some of the schools put up SUPW products exhibition alongwith the science exhibition where the SUPW products manufactured by the students are sold. School fete, annual day or foundation day provide good opportunity for the profitable disposal of articles made or produced by the students. In few schools the SUPW perishable agricultural products are disposed off as quickly as possible by selling among the staff and students of the school.

Work-books/Reference books Developed

As per the national guidelines circulated by NCERT, reference books for Class I to VIII have been developed in Manipuri Language by SCERT. These have been written either by different people or through the Editorial Board. These books have been prescribed as SUPW textbooks by the Government of Manipur. Books for IX and X have been developed by the Board of Secondary Education.

Teachers and Teachers Training

There is one SUPW subject teacher for each school.

At the National level, a batch of 20-30 teachers are sent for orientation programmes, workshops and training. At the state level, training programmes are organised every quarterly in different activities of SUPW.

Management

At the state level, an officer of the rank of Additional Director, in the office of the Directorate of Education (Schools) looks after the work of SUPW/WE programmes being run in the state.

The Board of Secondary Education, Government of Manipur has prepared the SUPW syllabus for primary/middle/high school level classes in consultation with the agencies i.e. NCERT.

The SCERT has developed textbooks for SUPW as per the guidelines circulated by NCERT.

Status Report of the Work Experience Programme in Maharashtra State

By:

S.B. Thakre
I/c Dy. Director
Vocational education and Training
Pune (Maharashtra)

1. Name of the State : Maharashtra

2. Statistical data/Information :

2.1 Number of Institutions : 9104

2.2 Number of Students : Classwise - Sexwise

Class	Male	Female	Total
VIII Std.	8,53,407	4,02,751	12,56,158
IX Std.	8,12,768	3,83,572	11,96,340
X Std.	7,74,065	3,65,307	11,39,372
Total	24,40,240	11,51,630	35,91,870

In Maharashtra the 11 Technical subjects viz. (i) Carpentry, (ii) Fitter, (3) Wireman, (iv) Blacksmith, (v) Moulder, (vi) Welder, (vii) Turner, (viii) Plumber, (ix) Building Construction, (x) Rural Technology and (xi) Textile are taught against work Experience at Secondary level and the enrolment of students are as follows:

Enrolment of Students

Standard	Govt. School	Non-Govt. Aided Schools	Non-Govt. Un-aided Schools
VIII	18,347	14,821	605
IX	13,735	12,302	91
X	10,272	10,792	82

2.3 Number of Teachers

The independent posts of teachers to teach Work Experience subject except technical subjects at secondary level are not created. However the interested teachers from the Institutions are given training by organising seminars, refresher courses etc. at National level, SCERT level etc. as follows:

(1) National Level: Teachers training programmes for SUPW are arranged by NCERT, New Delhi at various states twice in a year. In every such programmes, 60 to 80 teachers are given training.

Maharashtra State, so far NCERT has arranged 10 days duration four such programmes with the help of SCERT, Maharashtra States and about 250 teachers are given training.

NCERT also organise the teachers training programme throughout the year and for this programme, the teachers are called for training from all the states.

About 500 teachers are also trained so far in Maharashtra by attending above programmes.

(2) SCERT Level: Training programmes for secondary school level teachers are arranged every year by SCERT, Maharashtra state. The duration of such programmes are 10 days. About 480 teachers in 3 to 4 regions of the state are called for training for each programme.

PMOST Programme

During 1986 to 1989, 10 days duration Mass Oriented Teachers Programmes were also arranged by SCERT, Pune for Secondary and Primary School teachers and through such programmes about 5000 teachers are given training per year so far.

Besides the above organisations, the State Level Work Experient teachers sanghathana also organises at district level training programmes of 10 days duration every year in vacation period of the school, with the prior approval of the State Government. Generally 20 teachers subjectwise participate in such programmes.

To teach technical subjects at Secondary Level the number of teaching staff in Government and Non-Government aided as well as un-aided schools are as follows:

Post	Number of Teaching Staff		
	Govt. School	Non-Govt. aided school	Non-Govt. un-aided school
1. Headmaster 2. Engg. Supdt. 3. Asstt. Engg. Supdt. 4. Engg. Lecturer 5. Asstt. Lecturer 6. Jr. Lecturer 7. Instructor	901	1,233	41

2.4 List of WE Activities

List is attached herewith.

2.5 No. of hours allotted to WE activity per week and total teaching hours per week, grade-wise:

Class	No. of Periods	Hours
VIII	2	1 Hrs. 10 Mints.
IX	3	1 Hrs. 45 Mints.
X	3	1 Hrs. 45 Mints.

Note: The schools, teaching the subjects are permitted to allot 9, 12 and 12 periods for Std. VIII, IX and X respectively.

2.6 No. of workbooks/reference books developed

(i) About 10 workbooks have been developed in 1972.

(ii) Ten handbooks for Teachers of technical subjects have been published in 1989.

3. Details of Evaluation Procedure

(i) The examinations for VIII and IX are conducted by the Schools and the average marks obtained by the students in Theory, Practicals, Term work are converted into Letter Grades as follows:-

Marks	Grade
1. 60% and above	A
2. 45% to 55%	B
3. 35% to 44%	C
4. Below 35%	D (Failure)

(ii) Examination for Std. X

Except technical group, the examinations for Xth Std. are conducted by schools and for technical groups S.S.C. Examination Board conducts the examination.

The grades are given on average marks obtained by the students shown as above. The marks for technical subjects are given as below:

S.S.C. Exam. Technical subjects marks

1.	Theory	30 Marks
2.	Practical	30 Marks
3.	Class work	5 Marks
4.	Engg. Drawing	30 Marks
5.	Class work	5 Marks
	Total:	100 Marks

4. Institutional Infrastructural Facilities

In some schools, separate classrooms/workshop sheds are available and where technical subjects at secondary level are taught, the facilities of workshop/classrooms for technical subjects are also used for other WE subjects by such schools and where neither separate workshop sheds nor the class rooms for technical subjects are available, the schools use their regular classrooms to teach work experience.

For Work Experience, separate grants are not sanctioned by the Govt. However, the grant-in-aid schools meet the expenditure on tools, equipment and raw material etc. for WE from the grants sanctioned towards contingency (12½%) by the Govt. and non aided schools meet the above expenditure from their own funds.

5. Response of Students to WE Programme

If the teachers who teach WE are motivated, the response of the students are good. However, if the teachers are not motivated the response of the students are not much appreciable.

6. How the WE activities are co-ordinated at the Institution level?

Except technical subjects at secondary level, separate posts of WE teachers are not created. However, interested teachers in schools are deputed for WE training at National Level, State Level, District Level organised by various organisations and by such trained teachers, WE subjects are taught in schools.

In schools, every teacher is required to teach 30 hours per week and the teachers who teach WE cover this subjects within this workload of 30 hours.

7. Achievements/success stories in the field of work experience

For an example, I am happy to sight examples of two schools viz.-(1) Pehal High School, Pabal, Dist. Pune governed by a well renowned man Mr. Kalbag, (2) Apte Prashala, Pune, who is headed by Shri P.G. Vaidya. The subjects under Work Experience tought in these schools is found to be much useful to the students.

As narrated by these two fellows, the students strength under WE have started their own business in Catering and Service Sector are (e.g., Pipe fitting work, Building maintenance Work Services, Repairs and maintenance of Appliances etc.)

While the subject tought at Pabal Institute, basically covers the agriculture course, machinery, tools and equipments and agriculture equipments which are used by farmers needs yearly maintenance and repairs. The same is taught to the students under WE.

Also the Pabal Institute has taken some projects to develop equipments for agriculture farms e.g. the institute has developed a low cost transportation model which is useful to the farmers and was developed and prepared by the students of Xth Std. The students have also been given the training to spray the insecticides systematically and economically. Moreover, they have been trained in Bud Technology.

Thereby the institute earns money by selling the buds and farmers are benefitted by utilising the services of the students for spraying the insecticides at economical cost.

Such many other stories can also be told in other fields also.

8. Management Structure

(i) SSC Examination Board prepare the syllabus of various subjects of V.E and also moderate the same from time to time according to wants and needs and also conducts the examinations of Xth Std. for technical subjects.

(ii) Directorate: SCERT under the control of Directorate of Education, Maharashtra State, conducts 10 days duration training programmes for Secondary and Primary level teachers every year. The Directorate of Education/ Directorate of Vocational Education and Training control over the schools.

(iii) Maharashtra Textbooks Bureau: Prepares the textbooks of various subjects of ME.

(iv) The schools - make arrangements to teach ME to the students by providing infrastructural facilities, trained teachers etc., and also conduct examination upto Xth Std. except technical subject of Xth Std.

(v) The Education Officers of Zilla Parishads periodically inspect the schools and see that ME is tought in schools according to syllabus and also guide the teachers as well as solve the problems if any.

9. Is the State having earn while you learn scheme? If Yes, give the details.

At present there is no such system developed by which the students earn while they are working or learning. But whatever the work, the students perform during the work experience period if it is counted in terms of money, it will be an assets to the Institutes and from that a procedure can be laid down for sharing of the profits by the students while they learning or taking education.

10. Details of Innovative projects if any

The SCERT organises the seminar every year, and through discussions of experiences, exchange of ideas, by formulating committees to up-to-date the syllabus, and also introduces the new subjects according to needs of the society, taking into consideration the developing technology.

Optional Subjects

Standard-IX & X

Candidates shall have to select any one of the following subjects as per the scheme given below:

Sl.No.	Name of Subject	Marks for workbook	Marks for Practical	Total Marks
1.	Introduction to the world of Work AND Any two Work Experience Projects from the list given below (25 Marks each)	50	-	
	OR	-	50	100
	(I) Elements of Home Science AND Two Work-Experience Projects	50	-	
		-	50	100
	(i) Needle Work, Embriodery, Knitting and Crochet			
	(ii) Preparation of Nutritious Food (25 Marks each)			
	(II) Technical	50	50	100
	(III) Elements of Agriculture	50	50	100
	(IV) Elements of Commerce and Accounts (As given on page 227)	50	50	100
	(V) Elements of Fine Arts (Any one from the list given on page 227)	50	50	100
	(VI) Elements of Industrial Crafts (Any one from the list given on page 227)	50	50	100

Work Experience

(Any two projects--25 marks each = Total 50 marks)

1. Use of Common Tools
2. Maintenance and Production of School Science Apparatus
3. Maintenance and Elementary Repairs, Repairs of Radios
4. Preparation of Plastic Articles
5. Batik Art
6. Preparation of Suitcases
7. Maintenance and Elementary Repairs of Time-Pieces
8. Elementary Plumbing
9. Maintenance and Elementary Repairs of Water Pump
10. Elementary Chemical Technology
11. Maintenance and Preparation of Teaching Learning Aids
12. Needle work, Embriodery, Knitting and Crochet
13. Farm Operation
14. Poultry
15. Preparation of Bread and Biscuits
16. Pisciculture
17. Horticulture
18. Bee Keeping
19. Preparation of Nutritious Food
20. Marine Fisheries
21. Animal Management
22. Maintenance and Elementary Repairs of Typewriters
23. Silk Screen Painting
24. Painting
25. Sign Board Painting
26. House Decoration

Home Science and Work Experience Projects (2)

II. Technical

III. Elements of Agriculture

IV. Elements of Commerce and Accounts

Theory	Practical
Elements of Book-keeing or Elements of Commerce or Economics	Typewriting or Practical Work in Commerce

V. Elements of Fine Arts (Any one)

1. Drawing and Painting (History and Appreciation of Art and Practical
   or
   Work-Experience Projects
   (Any two from the list given above)
2. Indian Music
3. European Music
4. Dancing
5. Clay Modelling and Ceramics
6. Metal Craft
7. Furniture Design
8. Textile Design
9. Interior Decoration

VI. Elements of Industrial Crafts (Any one)

1. Metal Fitting Craft
2. Tailoring and cutting
3. Embriodery and Needle Work
4. Typography
5. Radio Engineering and Servicing
6. Jr. Chemical Technology
7. Plastic Technology
8. Handmade Paper-making
9. Cane and Bamboo work
10. Fisheries

11. Clay modelling leading to pottery
12. Wood work
13. Textile Technology Weaving (Power)
14. Textile Technology
    (i) Dyeing & Bleaching
    (ii) Engineering Drawing
15. Preparation of Coir articles
16. Photography
17. Electronics
18. Puppetry

Introduction to the world of work

Objectives

To enable the pupils to -

1. acquire knowledge about different types of occupations and their relevance to the needs of the people.
2. acquire knowledge about the factors to be considered in choosing one's own career.
3. understand the factors which are responsible for poverty of people and their relation to the world of work.

The Status Report of the Work Experience Programme in the State of West Bengal

By:

Shri G. Bagchi
Dy. Director of School Education
West Bengal

Part-A

Statistical Data

No. of Institutions	:	Primary - 51,000 (approx.)
	:	Secondary-14,000 (approx.)
No. of Students	:	54 (fifty four) (approx.)
No. of teachers	:	Primary : 1,73,000 (approx.)
	:	Secondary: 1,26,000 (approx.)

All teachers at the primary level are somehow engaged, as per requirement of Primary School Syllabus in the state, which include the following major curricular areas:

(a) Physical Education Activities;

(b) Content-based subjects (viz. mother language, Arithmatic, History, Geography and Natural Science);

(c) Direct Experience activities; and

(d) Productive and creative works-related to the work experience activities.

At the Secondary Level each of the Institution in the State has the teaching staff grouped as under:

(a) Head of the Institution

(b) Language Group

(c) Science and Mathematics Group

(d) Social Science Group (i.e. History & Geography); and

(e) Physical Education and Work Education Group.

In a 6 unit school (classes V-X with only one unit in each class, the [illegible] one of these 12 (twelve) teachers being the Work Education/CHLR. Craft teachers or teachers belonging to the technical stream in the old H.S. stream in the secondary schools are placed in the Work Education Group. The Work Education teachers mainly devote their time mainly for the work experience activities in the schools.

For any programme including short term orientation programme under the Directorate of School education, SCERT, PMOST /CB-PMOST the Work Education Teachers naturally get preference. At the Teachers' Training Level (Secondary), two Institutions (one at Kahara viz. Kahara Post Graduate Basic Training College and the other at Benoy Bhawan, Santiniketan under Vishwa Bharati University) with much more weightage (40% of the total assessment area) produce Trained Teachers (In-service and Pre-service - both with one year's course) who can directly be appointed as Work Education Teachers in the schools. Both universities has also revised the B.Ed. syllabus recently giving weightage to Work Education Aspects at the Training Institutions (B.Ed. Colleges) with one full Paper (Content and Method) in Work Education.

Part-B

B.1 List of WE Activities

Work Experience includes meaningful productive manual works, forward looking given in real productive situation. It signifies direct involvement in problem-solving activities related to the basic needs of life, which result in concious perception of reality in term of knowledge, skill and attitude.

At the primary level of School Education, the activities are grouped in 2 parts - one for the Productive works and Creative works - both for the teacher-trainees (in-service and pre-service following a common and uniform Teacher Education house for one year) in the 63 Primary Teachers' Training Institutions in the State 'Productive and Creative Works' are compulsory. Examining subject at the External Primary Teachers' Training. Examination with 100 marks (for theory and practice). At the school level the students have such activities (mainly at the AWARENESS LEVEL) from their teachers. There is no final examination (external) at the end of the Primary Stage (at the end of Class IV) and students pass through continuous and comprehensive evaluation systems, as prevailing in the state.

At the Secondary Level of School Education also specifical activities/item of work have been incorporated in the Revised Syllabus (1982) which is aimed at closer involvement in the programmes and changed/modified pattern of Evaluation (External) at the

end of Class X (with external examination marks of 50 (performance before the external examination-20; viva voce by the External Examination-20 and work education diary book-10 Total-50).

B.2 Involvement of teachers

As per government Order issued in 1974 (at the time of introducing revised syllabus for Secondary Education in the State) it was laid down that all teachers should be involved in WE programmes and for such involvement two periods must be assigned to a teacher with corresponding adjustment in the total work-load per week. While the work education Teacher would remain in full charge of the programme, other teachers might take part in environmental activities prescribed in lower classes (I-VIII) or even in higher classes (IX and X). However, in actual practice, however, the idea of involving of the subject teachers in work education activities did not materialise in work schools.

B.3 No. of hours allotted to WE activities

1 hour (daily) for each of the primary classs

1 hour daily (excepting saturday) in secondary schools for each of the secondary classes.

B.4 Institutional Infrastructure

Initially, the schools would get lump-sum amount for implementation of work experience (productive and creative works at the primary level and work education at the secondary level) in schools but gradually such release of grants was not forthcoming. The

heads of the institutions even if interested could handy make the programmes successfully implemented in their institutions mainly because of monetary constraints and secondly due to lack of proper motivation.

B.5 Instructional Material Development

Progress in the field of development of instructional materials, in West Bengal has not been with much significance. However, one teachers' guide book and Specific Instruction manual for Examination (Assessment) of Work Education Activities in secondary schools have been published. Vocational Guide/Instruction Books have also been released. Teacher Training Colleges(secondary level) and Training Institutes (primary level) with work education activities are guided by NCERT publications on the subject and also on State Syllabi for the project.

B.6 Student Response

Psychologically, students want to do creative work, produce materials with their own hand. But due to practical constraints and consideration students responded rather feebly to the programmes of Work Education.

B.7 Achievement/Success Stories in the field of WE

Nothing significant in recent days.

B.8 Management Structure

West Bengal Board of Primary Education (alongwith district school Boards/Councils for Primary Schools in districts) at the

primary level, West Bengal Madarasa Education Board (for Madarasa education), West Bengal Board of Secondary Education, SCERT, Directorate of School Education, West Bengal (with branching at the districts, sub-divisions and circles/blocks) etc. are the major functionaries in the area and any improvement/continuing programme for Work Education must embrace all such institutions/agencies at the national level, state level or any other lower level.

However, the Directorate of School Education must be allowed to remain/act as the Coordinating/Nodal Agency for any such programme for proper implementation.

Further Recommendations

Research studies, evolvement of evaluation tool, for measurement/assessment of the competencies of the students and the teachers, periodic and systematic training/orientation of school supervision, stressing upon Teacher's role in implementing the Programme of work Experience/Education and finally periodical and regular follow-up works are being recommended - to be taken up by the apex bodies at the National/State level in order that the scheme may produce expected fruits through carefully thought out work strategies. All agencies mentioned in the last paragraph should be got involved in any such programme.

उत्तर प्रदेश में पूर्व व्यावसायिक शिक्षा या कार्यानुभव

अपर शिक्षा निदेशक
(व्याशि0)
उत्तर प्रदेश

राष्ट्र के समक्ष शिक्षित बेरोजगारों की बढ़ती हुई संख्या का जीविकोपार्जन आज एक चुनौती है, क्योंकि कुण्ठाग्रस्त यह एक ऐसी युवाशक्ति है जो भविष्य में अच्छे समाज के निर्माण में बाधक हो सकती है। अतः आवश्यकता इस बात की अनुभव की जा रही है कि इस युवाशक्ति को कार्य की दुनिया से जोड़े जाने वाली ऐसी शिक्षा की व्यवस्था की जाए जिससे कि वे अपना जीविकोपार्जन कर अच्छे समाज का निर्माण कर सकें।

उत्तर प्रदेश में प्रतिवर्ष बेरोजगारों की बढ़ती संख्या :

उल्लेखनीय है कि उत्तर प्रदेश में आज हाईस्कूल स्तर पर बैठने वाले छात्रों की संख्या लगभग 18,००,००० (18 लाख) है और इन 18 लाख में से 50%. अर्थात 9 लाख परीक्षार्थी अनुत्तीर्ण हो जाते हैं। अवशेष 9 लाख उत्तीर्ण परीक्षार्थियों में से केवल 8 लाख इण्टरमीडिएट परीक्षा में बैठते हैं अर्थात 1 लाख परीक्षार्थी ड्रप-आउट्स होते हैं या पढ़ाई छोड़ कर बैठ जाते हैं। इस प्रकार हाईस्कूल स्तर पर लगभग 9 लाख हाईस्कूल अनुत्तीर्ण + 1 लाख हाईस्कूल उत्तीर्ण ड्राप-आउट्स कुल 10 लाख छात्र प्रतिवर्ष हाईस्कूल स्तर पर बेरोजगार बैठ जाते हैं।

इसी प्रकार इण्टरमीडिएट स्तर पर लगभग 4.25 लाख छात्र अनुत्तीर्ण होकर तथा 4.25 लाख उत्तीर्ण में लगभग 2 लाख कुल मिलाकर 6.25 लाख छात्र ड्राप आउट्स के रूप में बैठ जाते हैं।

(1) हाईस्कूल के परीक्षार्थी 18 लाख → उत्तीर्ण छात्र 9 लाख → इण्टर के परीक्षार्थी 7 लाख

अनुत्तीर्ण छात्र 9 लाख

हाईस्कूल उत्तीर्ण ड्राप आउट्स 1 लाख

(2) [illegible] परीक्षार्थी 4.25 लाख → उत्तीर्ण छात्र 4.25 लाख → यूनिवर्सिटी शिक्षा 2 लाख

अनुत्तीर्ण परीक्षार्थी 4.25 लाख

इण्टर उत्तीर्ण आउट्स 2.25 लाख

इस प्रकार हाईस्कूल स्तर पर 9 लाख + 1 लाख पचहत्तर हजार = 10 लाख तथा इण्टरमीडिएट स्तर पर 4.25 लाख + 2.25 लाख = 6.50 लाख प्रतिवर्ष बेरोजगार बैठ जाते हैं, जिन्हें स्वतः रोजगार हेतु कार्यानुभव अथवा व्यावसायिक शिक्षा के पढ़ने की आवश्यकता है ।

प्रदेश में कार्यानुभव की शिक्षा का प्रावधान :

सामान्य रूप से कक्षा 9 तथा कक्षा 10 के स्तर पर प्रदेश के 6142 विद्यालयों में सभी छात्रों के [illegible] रूप से कार्यानुभव पढ़ने का प्रावधान है, जिनका आन्तरिक मूल्यांकन 100 अंकों में होता है । आन्तरिक मूल्यांकन हेतु प्रधानाचार्यों को अधिकृत किया गया है कि वे कक्षा अध्यापकों की सहायता से छात्रों का मूल्यांकन कर ए, बी, सी, डी, ई, श्रेणी प्रदान करेंगे और जो छात्र इन [illegible] श्रेणी के योग्य नहीं पाये जायेंगे उनका उल्लेख वे छात्रों की डायरी में करेंगे तथा ऐसे छात्र कक्षा 10 की परीक्षा में बैठने के लिए अर्ह नहीं माने जायेंगे ।

कार्यानुभव का शिक्षा प्रदेश के सभी 6142 विद्यालयों में नैतिक - शारीरिक एवं समाजोपयोगी उत्पादक कार्य एवं समाज सेवा के रूप में अनिवार्य रूप से पढ़ाई जा रही है, किन्तु विशिष्ट रूप से इसे 1000 ऐसे उन विद्यालयों

में इस शिक्षा को लागू किया गया है, जिनमें छात्र संख्या अधिक है। इन 1000 विद्यालयों में से वर्ष 1988-89 में 200 विद्यालयों को 1000-00 रु. प्रति विद्यालय के अनुसार उपकरणों एवं कच्चे माल के क्रय हेतु अनुदान दिया जा चुका है, अन्य शेष विद्यालयों के लिए अनुदान दिया जाना शासन के विचाराधीन है।

विद्यालयों की संख्या :

(क) अनिवार्य रूप से प्रदेश के जिन विद्यालयों में लागू है। — सभी 6142 विद्यालयों में।

(ख) विशिष्ट रूप से प्रदेश के जिन विद्यालयों में लागू है। — चयनित 1000 विद्यालयों में।

छात्र-छात्राओं की संख्या (अनुमानित):

6142 विद्यालयों में से 1000 चयनित विशिष्ट विद्यालयों में

क्रमांक	विद्यालयों की संख्या	कक्षा - 9	कक्षा - 10
(1)	244 बालिका विद्यालयों (244 वि0 x 4 सेक्शन x 50 छात्राएँ)	48,800	48,800
(2)	756 बालकों के विद्यालय (756 वि0 x 4 सेक्शन 50 छात्र)	1,51,200	1,51,200
	योग	2,00,000	2,00,000

अध्यापकों एवं उनके प्रशिक्षण की व्यवस्था :

जहाँ तक अध्यापकों का प्रश्न है उनकी व्यवस्था कार्यानुभव के लिए अलग से नहीं की गई है, बल्कि कृषि अध्यापकों, कृषि अध्यापक एवं अन्य विषय अध्यापकों की पुनर्व्यवस्था योजना के अन्तर्गत अध्यापक कार्य चलाया जा रहा है ।

उपर्युक्त व्यवस्था के अन्तर्गत प्रत्येक वर्ग को एक अध्यापक पढ़ाता है । इस प्रकार से प्रत्येक विद्यालय में लगभग 8 अध्यापक कुल मिलाकर 1000 विद्यालयों में x 8 अध्यापक = 8000 अध्यापक पढ़ाते हैं ।

इन अध्यापकों को वर्ष 1988-89 में निदेशालय द्वारा पीपुल्स कालेज, हल्द्वानी में प्रशिक्षित कराया जा चुका है ।

कालांशों की व्यवस्था :

प्रत्येक कक्षा में 5 कालांशों की निम्नवत व्यवस्था है :

क्रमांक	विषय	कालांश सैद्धान्तिक	कालांश प्रयोगात्मक
(1)	भाषा	9	
(2)	द्वितीय भाषा	6	
(3)	विज्ञान-1/विज्ञान-2	6	2
(4)	गणित/गृह विज्ञान	6	
(5)	सामाजिक विज्ञान	6	
(6)	वैकल्पिक विषय	6	2
(7)	कार्यानुभव	5	
	योग	44	4

वर्क बुक की व्यवस्था :

छात्रों द्वारा प्रयोग की जाने वाली वर्क बुक की सम्प्रति कोई व्यवस्था नहीं की गयी है ।

कार्यानुभव के पाठ्यक्रम के स्वरूप की संकल्पना :

कार्यानुभव की शिक्षा के अन्तर्गत सामूहिक तथा व्यक्तिगत रूप से छात्रों द्वारा ऐसे कार्यों को कराये जाने की संकल्पना है, जो समाज के लिए उपयोगी हों तथा उत्पादकता से जुड़े हों । इसी आधार पर इन कार्यों को समाजोपयोगी उत्पादक कार्यों के नाम से भी सम्बोधित किया जाता है ।

डा० बी०सी० कुलन्दई स्वामी, अध्यक्ष, राष्ट्रीय कार्यकारी दल (1985) की संस्तुतियों के अनुसार प्राइमरी, पूर्व माध्यमिक तथा माध्यमिक स्तरों पर पाठ्यक्रम एवं समय विभाजन निम्नवत रखा जाना चाहिए ।

क्रमांक	स्तर/कक्षा	उत्पादक कार्य	सामुदायिक कार्य
(1)	प्राइमरी (कक्षा 1 से 5 तक)	4 प्रतिशत	16 प्रतिशत
(2)	पूर्व माध्यमिक (कक्षा 6 से 8)	10 प्रतिशत	10 प्रतिशत
(3)	माध्यमिक शिक्षा (कक्षा 9से10	16 प्रतिशत	4 प्रतिशत

उपर्युक्त तालिका से स्पष्ट है कि कार्यानुभव को दो भागों में वर्गीकृत किया जा सकता है (1) उत्पादक कार्य, (2) सामुदायिक कार्य । इन दोनों में से प्राथमिक कक्षाओं में सामुदायिक कार्यों पर बल अधिक देना चाहिए तथा बढ़ते हुए पूर्व माध्यमिक और माध्यमिक कक्षाओं में सामुदायिक कार्यों पर बल कम और उत्पादक कार्यों पर तुलनात्मक बल अधिक देना चाहिए ।

राष्ट्रीय शिक्षा नीति (1986) में भी इसी प्रकार से संस्तुति की गयी है ।

एन0सी0ई0आर0टी0 द्वारा भी कार्यानुभव हेतु संकल्पित उद्देश्यों की पूर्ति के लिए छात्र को दो प्रकार के कार्यों को करने की संस्तुति की है :

(1) सामुदायिक कार्य – अनिवार्य कार्य के रूप में कक्षा के सभी छात्र एक साथ करेंगे ।

(2) उत्पादक कार्य – वैकल्पिक कार्य के रूप में अपनी इच्छानुसार कार्यों का चयन कर कक्षा के छात्र 4 या 5 ग्रुप में विभक्त होकर कार्य करेंगे ।

उत्तर प्रदेश में भी कार्यानुभव के पाठ्यक्रम को इसी प्रकार से सामुदायिक कार्यों का वाह्य कार्यानुभव जिन्हें कक्षा के बाहर सामूहिक रूप से पूरा करना है तथा उत्पादन कार्यों को आन्तरिक कार्यानुभव जिन्हें कक्षा के अन्दर समूहों में पूरा किया जाना है । कहा जाता है उदाहरणस्वरूप कार्यानुभव के इन बाह्य तथा आंतरिक कार्यों के आधार पर एक पाठ्यक्रम तैयार किया गया है जो आगे दिया जा रहा है ।

उत्तर प्रदेश में कक्षा 8 का पाठ्यक्रम (कार्यानुभव)

(क) आन्तरिक कार्यानुभव :

स्थानीय उपलब्ध संसाधनों तथा वहाँ की माँग के अनुसार किसी एक शिल्प का चयन – घड़ी बनाना, मोमबत्ती बनाना, फोटोग्राफी, टेकरी, होजरी, दरी बनाना, ऊन की कताई तथा ऊन से बुनाई, बेंत का कार्य, भोजन संरक्षण, जैम, जेली, स्क्वेश, गुलकन्द, पापड, चिप्स, बड़ियाँ, चटनी मुरब्बा बनाना, पेंटिंग, पालिश बनाना ।

(ख) वाह्य कार्यानुभव :

(1) स्वास्थ्य एवं स्वच्छता, विद्यालय तथा पास-पड़ोस में स्वच्छता अभियान ।

प्राथमिक चिकित्सा, लू-लगना, मूर्छित होना, आँख, कान में पड़ी वस्तु को निकालना, जल जाना, उल्टी होना ।

प्रदूषण से बचाव, बढ़ते वय के साथ शारीरिक परिवर्तनों के अनुरूप सफाई ।

(2) भोजन – विभिन्न प्रकार के भोजन बनाना, जैसे सरोज का भोजन पकाना तथा उनका रख-रखाव ।

(3) आश्रय – घर को प्रदूषणों से बचाव, छोटी-मोटी मरम्मत करना, दीवारों की मरम्मत ।

(4) वस्त्र – विभिन्न प्रकार के वस्त्रों की जानकारी, वस्त्रों की सफाई धुलाई, रंगाई, छपाई, सिलाई, कपड़े को नाप के अनुसार काटना तथा सिलाई करना ।

(5) सांस्कृतिक कार्य तथा मनोरंजन – विभिन्न पर्वों तथा उसके उत्सवों पर सांस्कृतिक कार्यक्रम आयोजित करना । कठपुतली बनाना, वाद्ययंत्रों का प्रयोग, लोकगीत, लोक नृत्य का अभ्यास ।

(6) सामुदायिक कार्य तथा समाज सेवा – सामूहिक श्रमदान, घर के पास-पड़ोस में वृक्षारोपण एवं वृक्षों की देखभाल ।

आग एवं प्राकृतिक आपदाओं से बचाव, विकलांगों की सहायता ।

आत्म सुरक्षा हेतु विभिन्न आसनों को जुड़ो-कराटे का प्रशिक्षण, योगाभ्यास, निरक्षरों को साक्षर बनाना ।

उत्तर प्रदेश में कक्षा 9 तथा 10 का पाठ्यक्रम (कार्यानुभव)

(क) आन्तरिक कार्यानुभव :

स्थानीय सुविधानुसार निम्नलिखित में से कोई कार्य कराया जाय-

(1) विद्यालय की कृषि भूमि पर आधारित ऋतु अनुसार फूल-पत्तियों का लगाना एवं सब्जियाँ बोना ।

(2) विद्यालय में बगीचा का काम तैयार करना ।
(3) गमलों में सजे जाने शोभायुक्त पौधे लगाना ।
(4) [illegible] पर बेल लगाना, लताएँ लगाना ।
(5) [illegible]
(6) काष्ठ शिल्प
(7) कताई-बुनाई
(8) ग्रन्थ शिल्प
(9) चर्म शिल्प
(10) धातु शिल्प
(11) धुलाई रफू, बखिया
(12) रंगाई और छपाई
(13) सिलाई
(14) मूर्ति कला
(15) मत्स्य पालन
(16) मधुमक्खी पालन
(17) मुर्गी पालन
(18) साग-सब्जी का उत्पादन
(19) फल संरक्षण
(20) रेशम तथा टसर का काम
(21) [illegible]
(22) फोटोग्राफी
(23) रेडियो मरम्मत
(24) घड़ी मरम्मत
(25) चाक तथा मोमबत्ती
(26) कालीन एवं दरी का निर्माण
(27) फूलों, फलों तथा सब्जियों के पौधे तैयार करना ।

(28) लकड़ी, मिट्टी आदि के खिलौनों का निर्माण

(29) बेकरी और कन्फेक्शनरी का काम ।

(ख) वाह्य कार्यानुभव :

(1) सामान्य व्यवहार की बातें जैसे सड़कों पर चलने, वाहन चलाने एवं सार्वजनिक स्थानों पर व्यवहार के नियम ।

(2) सामुदायिक विकास के कार्य, विद्यालय परिसर एवं परिसर की स्वच्छता एवं सफाई ।

(3) श्रमदान का महत्व एवं अभ्यास (महीने में एक दिन विद्यालय के हित में श्रमदान करना)

(4) कक्षा सजावट

(5) देशाटन (आउटिंग)

(6) नशाबन्दी एवं धूम्रपान आदि व्यसनों के कुप्रभाव से अवगत कराना ।

(7) विद्यालय का प्रारम्भ, सामूहिक प्रार्थना एवं दैनिक प्रतिज्ञा से होनी चाहिए ।

(8) प्रार्थना स्थल पर सप्ताह में दो बार प्रधानाचार्य शिक्षकों विशेष अतिथियों एवं छात्रों द्वारा नैतिक मूल्यों को लगाने वाले दो मिनट के प्रवचन कराये जाएँ ।

(9) विद्यालय में समय-समय पर अभिनय, लेख, कहानी, सूक्ति, कविता पाठ, अन्त्याक्षरी आदि की प्रतियोगिताओं, महापुरुषों के जन्मदिनों तथा वार्षिकोत्सव एवं राष्ट्रीय पर्वों का आयोजन किया जाय ।

(10) छात्रों को प्रतिदिन निर्धारित व्यायाम एवं योगासन करने के लिए प्रेरित किया जाय ।

(11) सामूहिक व्यायाम एवं खेलों का आयोजन किया जाय ।

(12) समाज सेवा के कार्य के अन्तर्गत विद्यालय प्रदर्शनी का आयोजन, विद्यालय की सफाई, मरम्मत एवं सजावट तथा पुस्तकालय सेवा जैसे रचनात्मक कार्य भी कराये जाएँ ।

मूल्यांकन व्यवस्था :

मूल्यांकन में सतत-व्यापक मूल्यांकन अपना एक विशेष महत्व होता है । अतः इस शिक्षा को पूर्ण कार्यान्वयन एवं सफलता में लागू किया गया है ।

[illegible] सतत आपसी निरन्तरता बनी रहे, इसके लिए कार्यानुभव तथा संलग्न गतिविधियों का मूल्यांकन वर्ष में 5 बार तथा मूल्यांकन व्यापक हो, इसके लिए निम्नलिखित छोटे-छोटे खण्डों में मूल्यांकन प्रक्रिया प्रस्तावित है :

मूल्यांकन आलेख:

क्रमांक	माह	कार्यानुभव आन्तरिक	कार्यानुभव वाह्य	खेलकूद	योगासन	सांस्कृतिक	नैतिक	योग
1–	अगस्त	5	5	5	5	5	5	30
2–	अक्टूबर	5	5	5	5	5	5	30
3–	दिसम्बर	5	5	5	5	5	5	30
4–	जनवरी	सामुदायिक सेवा/युवा शिविर/प्रौढ़ शिक्षा						50
5–	फरवरी	5	5	5	5	5	5	30
6–	अप्रैल	5	5	5	5	5	5	30
	योग							200अंक

मूल्यांकन का आधार निम्नवत् होना चाहिए :

(1) कार्य में नियमित उपस्थिति

(2) अभ्यास कार्य ; सहभागिता)

(3) उपलब्धि

(4) कार्य की उत्कृष्टता, मौलिकता एवं कार्यरत व्यवहार एवं आचरण

प्राप्तांकों के आधार पर उपयुर्क्त को भाँति छात्रों को एक मूल्यांकन अभिलेख रखना होता है और प्राप्तांकों के अनुसार निम्नवत् श्रेणियाँ प्रदान की जाती हैं :

प्रतिशतता	200 अंकों में प्राप्तांक	श्रेणी
75% या अधर	150– 150	ए
60%– 74%	120– 149	बी
45%– 59%	90– 119	सी
33%– 44%	66– 89	डी
33%–से नीचे	00–65	ई

प्रमाण पत्र :

प्रत्येक छात्र को कार्यानुभव, खेलकूद एवं नैतिक शिक्षा के कार्यक्रमों में प्रतिभाग एवं उपलब्धि के लिए प्रमाण पत्र दिये जायेंगे ।

संस्थागत सुविधाएँ :

चयनित 1000 विद्यालयों में से प्रथम चयनित 200 विद्यालयों को 1000–00 रु० प्रति विद्यालय के अनुसार उपकरणों एवं कच्चा माल सामग्री हेतु शासन द्वारा अनुदान दिया गया है । अन्य 800 विद्यालयों को इस कार्य हेतु अनुदान दिया जाना शासन के विचाराधीन है ।

छात्रों की कार्यानुभव के प्रति रुचि :

कतिपय विद्यालयों में छात्रों द्वारा कार्यानुभव कार्यक्रमों में रुचि ली जा रही है अर्थात यह बात इस पर निर्भर करती है कि प्रधानाचार्य इस कार्यक्रम में कितनी रुचि ले रहे हैं । विशेष रूप से बालिका विद्यालयों में यह कार्यक्रम अच्छे चलाये जा रहे हैं ।

संस्था स्तर पर कार्यक्रमों की सम्बद्धता :

अभी इस दिशा में कोई विशेष प्रगति नहीं है । कतिपय विद्यालयों में पोषपुत्र कालेज, हल्द्वानी ने अपने को सम्बद्ध करके अनेक कार्यक्रम चलाये हैं जैसे - शहद की मक्खी का पालन, बेंत का कार्य, कैनवेस के झोले तथा बिस्तरबन्द तैयार करना, मोमबत्ती बनाना, धूपबत्ती बनाना, टैक्सटाइल प्रिंट, चाक बनाना आदि ।

सफलता की कहानियाँ :

हनुमत इण्टर कालेज, धम्मौर, सुल्तानपुर में कार्यानुभव सफलतापूर्वक चल रहा है । इस विद्यालय के प्रधानाचार्य, ठा० बंशराज सिंह उत्साही व्यक्ति हैं, फलतः शहद का उत्पाद, कैनवेस के बिस्तरबन्द तथा झोले, धूपबत्ती का निर्माण, बनयाइन आदि की बिक्री भी होती है जो सबकी माँग पूरी नहीं कर रहे हैं ।

उपर्युक्त की भाँति आर्य कन्या इण्टर कालेज, मुरादाबाद द्वारा सिले-सिलाए कपड़ों की आपूर्ति, बरेली में राजकीय इण्टर कालेज के छात्रों द्वारा केश तेल, चाक आदि बनाने का कार्य तथा क्वीन्स कालेज, वाराणसी द्वारा रेडियो एवं ट्रांजिस्टर एवं फोटोग्राफी अधिक लोकप्रिय हो रहे हैं ।

विद्यालय स्तर पर व्यवस्था :

विद्यालय स्तर पर प्रधानाचार्य अथवा उसके किसी वरिष्ठ अध्यापक द्वारा इस व्यवस्था देखी जाती है ।

पढ़ते समय जीविकोपार्जन करने की योजना ("अर्न व्हाइल यू लर्न")

इस योजना के अन्तर्गत प्रदेश में कोई कार्यक्रम नहीं चलाया गया है, वरन् व्यक्तिगत के स्थान पर कतिपय विद्यालयों में सामूहिक रूप से तैयार किये गये माल की बिक्री की जाती है ।

नवीनतम योजनाएँ :

नये कार्यक्रमों के अन्तर्गत गाँवों में नर्सरी द्वारा सस्ते मूल्यों पर पौधों की बिक्री करके नये पौधों को लगवाकर हरितक्रान्ति का प्रयास किया गया है ।

---000---

[illegible] nal [illegible]
held at [illegible] [illegible]
([illegible]rala) from 9th [illegible]

List of [illegible]

1. [illegible] Bhai
[illegible]
[illegible] rati [illegible] [illegible]
[illegible]lam
[illegible]25002

2. [illegible] [illegible]malath[illegible]
Principal/Secretary
[illegible] Montessori [illegible]
Hr. Secondary School
[illegible]krishnan Grounds
[illegible]

3. [illegible] Chaudhary
Principal
[illegible] College of [illegible]
Faiz[illegible]ur. Distt. [illegible]
Maharashtra

4. [illegible] Bhargava
[illegible]
[illegible] College of [illegible]
[illegible]

5. Dr. [illegible] Grewal
Professor & Dean
[illegible] College of [illegible]
[illegible] 2013

6. [illegible] Thirumani
[illegible] Officer
[illegible]rience [illegible]
S[illegible] [illegible]titute of [illegible]
[illegible] (Trivan[illegible])

7. Mr. S.B. Thakur
Deputy Director
Vocational Guidance and Training
Regional Office
[illegible]
[illegible]

8. Mr. [illegible]
Deputy Director of School Education
West Bengal
Directorate of School Education
(Near Secrtt. Building) 6th Floor
Calcutta-1

9. Dr. S.S. Kalbag
Director
Vigyan Ashram, Pabel
Dist. Pune-412403

10. Dr. J.M. Surlacar
Chairman
Goa Board of Secondary and
Higher Secondary Education,
Alto Betim
Goa

11. Mr. Awadh Bihari Dube
Deputy Director
Directorate of Public Instruction
Madhya Pradesh (Near Royal Market)
Bhopal

12. Dr. R.S. Kushwah
Asst. Professor, M.P.
State Council of Educational Research
and Training,
Bhopal

13. Mr. K.K. Mahadevan
Secretary
Kerala Work Experience Teachers
Association,
Ernakulam-682315

14. Dr. Sachita Kumar Sinha
Director (Secondary Education)
B.E.D. Deptt., Vikas Bhavan
Patna-800015
Bihar

15. Mr. Gulzar Hussain Saswar
Research Officer
State Institute of Education
Srinagar

16. Dr. (Mrs.) Neeru Saluja
Professor & Head
D.V.E., SCERT
D.M. College, Imphal
Manipur

17. Mr. P.K. Mohanty
Reader
Regional College of Education
Bhubaneswar

18. Mr. T. Sudershan Rao
Professor and Head
(Vocational Department)
S.C.E.R.T., Opp. L.B. Stadium
Hyderabad-500001

19. Mr. P.C. Mahanta
Secretary to the Govt. of Assam
Assam Sachivalaya
Guwahati-781006

20. Mr. D. Prabhavathy Rao
Principal
Jawahar Navodaya Vidyalaya
Sirpur, Khagajanagar
Distt. Adilabad (A.P.)

21. Ms. Vasundhara Devi
Teacher, Spl. Mpl.
S.L.N.T.R. School
Narsapur
West Godavari Distt
(A.P.)

22. Mr. K.G. Sudas
Executive Committee Member
Mitranikotan
Vellanad
Kerala

23. Mr. P.K. Pillai
Member Secretary
Chief Project Coordinator
Padma Vilas, [illegible]
Trivandrum

24. Mr. K. [illegible]
Mitraniketan
[illegible]
Kerala

25. Prof. N. Velamani Manuel
Director, CARD
Vellanad
Kerala

26. Dr. A.S. Narayana Pillai
Vellanad
Kerala

27. <u>Hony. Director</u>: Shri K. Vishwanathan, Director, Mitraniketan

<u>NCERT Faculty</u>

28. Dr. A.K. Mishra
Dean (Academic) Prof. & Head
DVE, NCERT
New Delhi

29. Dr. A.K. Sacheti, Reader, DVE, NCERT, New Delhi

30. Shri C.K. Misra, Reader DVE, NCERT, New Delhi

31. Shri G. Guru, Reader, DVE, NCERT, New Delhi

32. Dr. A.P. Verma, Reader & Programme Coordinator,
DVE, NCERT, New Delhi

Appendix-II

Agenda of the Seminar

9.12.91 (Monday)	-	Registration and Welcome
	-	Presentation of state reports on the status of implementation of Work Experience programme.
	-	Presentation of theme paper on 'Vocationalization for All - Background and Issues'.
10.12.92 (Tuesday)	-	Presentation of sub theme paper I: Character Building and Inculcation of Values through WE activities.
	-	Inauguration of the seminar by H.E. Shri. B. Rachaiya, Governor of Kerala.
	-	Presentation of sub theme paper II on 'Teaching Procedures and Teacher Training'.
	-	Visit to different departments of Nitraniketan.
	-	Late night session (8.30 p.m. to 10.00 pm.) to discuss paper on sub theme II i.e. 'Teaching Procedures and Teaching Training'.
11.12.91 (Wednesday)	-	Presentation of sub theme paper II i.e. Work Experience and Community Participation.
	-	Finalization of the papers presented in various sessions by taking into consideration the comments of participants in Group Work and preparation of recommendations.
	-	Presentation of Group Reports
	-	Concluding Session